



# TECHNOKABEL®

łączy i przewodzi

## Cable Catalogue

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**YSLY-JZ 300/500 V, YSLY-OZ 300/500 V  
YSLY-JB 300/500 V, YSLY-OB 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from - 40°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

**APPLICATIONS**

**YSLY-JZ 300/500 V, YSLY-OZ 300/500 V, YSLY-JB 300/500 V i YSLY-OB 300/500 V** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - YSLY-OZ 300/500 V** - black insulation and white conductor numbers printed on it,
  - YSLY-OB 300/500 V** – in accordance with PN-HD 308 standard,
  - green-yellow protective conductor in **YSLY-JZ 300/500 V** and **YSLY-JB 300/500 V** cables,
- insulated conductors laid-up in layers in to a cable core,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**YSLY-JZ OR 300/500 V, YSLY-OZ OR 300/500 V, YSLY-JB OR 300/500 V i YSLY-OB OR 300/500 V** – cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**HSLH-JZ 300/500 V, HSLH-OZ 300/500 V, HSLH-JB 300/500 V i HSLH-OB 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**YSLY-JZ 300/500 V, YSLY-OZ 300/500 V  
YSLY-JB 300/500 V, YSLY-OB 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	for fixed installation from - 40 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross- section	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
	mm <sup>2</sup>			
YSLY-JZ 300/500 V				
1763 001	2x0,5	4.8	9.6	33
1763 002	3x0,5	5.1	14.4	40
1763 003	4x0,5	5.5	19.2	47
1763 004	5x0,5	6.2	24	60
1763 005	6x0,5	6.7	28.8	71
1763 006	7x0,5	6.7	33.6	73
1763 007	8x0,5	7.2	38.4	84
1763 008	10x0,5	8.3	48	102
1763 009	12x0,5	8.6	57.6	115
1763 010	14x0,5	9.2	67.2	133
1763 011	16x0,5	9.7	76.8	150
1763 012	18x0,5	10.2	86.4	167
1763 013	20x0,5	10.7	96	184
1763 014	21x0,5	10.7	100.8	186
1763 015	27x0,5	12.3	129.6	236
1763 016	30x0,5	12.7	144	256
1763 017	36x0,5	13.7	172.8	303
1763 018	40x0,5	14.2	192	329
1763 019	44x0,5	15.5	211.2	367
1763 020	48x0,5	15.8	230.4	393
1763 021	52x0,5	16.2	249.6	420
1763 022	56x0,5	16.7	268.8	450
1763 023	61x0,5	17.2	292.8	482
1763 024	2x0,75	5.2	14.4	41
1763 025	3x0,75	5.4	21.6	48
1763 026	4x0,75	6.1	28.8	61
1763 027	5x0,75	6.6	36	74
1763 028	6x0,75	7.2	43.2	88
1763 029	7x0,75	7.2	50.4	91
1763 030	8x0,75	7.7	57.6	104
1763 031	10x0,75	9.2	72	132
1763 032	12x0,75	9.5	86.4	149
1763 033	14x0,75	10.0	100.8	169
1763 034	16x0,75	10.5	115.2	190
1763 035	18x0,75	11.1	129.6	213
1763 036	20x0,75	11.6	144.0	235
1763 037	21x0,75	11.6	151.2	238

Product No.	Number of conductors x conductor cross- section	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
	mm <sup>2</sup>			
1763 038	27x0,75	13.4	194.4	303
1763 039	30x0,75	13.8	216.0	330
1763 040	36x0,75	14.9	259.2	391
1763 041	40x0,75	15.7	288.0	433
1763 042	44x0,75	16.9	316.8	474
1763 043	48x0,75	17.2	345.6	509
1763 044	52x0,75	17.7	374.4	545
1763 045	56x0,75	18.4	403.2	592
1763 046	61x0,75	19.0	439.2	636
1763 047	2x1,0	5.5	19.2	48
1763 048	3x1,0	6.0	28.8	60
1763 049	4x1,0	6.6	38.4	74
1763 050	5x1,0	7.1	48.0	90
1763 051	6x1,0	7.7	57.6	106
1763 052	7x1,0	7.7	67.2	112
1763 053	8x1,0	8.3	76.8	128
1763 054	10x1,0	9.9	96.0	162
1763 055	12x1,0	10.3	115.2	185
1763 056	14x1,0	10.8	134.4	209
1763 057	16x1,0	11.3	153.6	236
1763 058	18x1,0	12.2	172.8	269
1763 059	20x1,0	12.8	192.0	298
1763 060	21x1,0	12.8	201.6	303
1763 061	27x1,0	14.5	259.2	377
1763 062	30x1,0	15.2	288.0	419
1763 063	36x1,0	16.4	345.6	497
1763 064	40x1,0	17.0	384.0	542
1763 065	44x1,0	18.6	422.4	603
1763 066	48x1,0	18.9	460.8	647
1763 067	52x1,0	19.4	499.2	694
1763 068	56x1,0	20.0	537.6	744
1763 069	61x1,0	20.6	585.6	800
1763 070	2x1,5	6.7	28.8	70
1763 071	3x1,5	7.0	43.2	84
1763 072	4x1,5	7.7	57.6	104
1763 073	5x1,5	8.4	72.0	127
1763 074	6x1,5	9.3	86.4	155

**YSLY-JZ 300/500 V, YSLY-OZ 300/500 V  
YSLY-JB 300/500 V, YSLY-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1763 075	7x1,5	9.3	100.8	163
1763 076	8x1,5	10.1	115.2	188
1763 077	10x1,5	11.8	144.0	231
1763 078	12x1,5	12.4	172.8	270
1763 079	14x1,5	13.0	201.6	305
1763 080	16x1,5	13.8	230.4	347
1763 081	18x1,5	14.5	259.2	387
1763 082	20x1,5	15.5	288.0	437
1763 083	21x1,5	15.5	302.4	444
1763 084	27x1,5	17.6	388.8	555
1763 085	30x1,5	18.4	432.0	615
1763 086	36x1,5	19.9	518.4	731
1763 087	40x1,5	20.6	576.0	798
1763 088	44x1,5	22.5	633.6	885
1763 089	48x1,5	22.9	691.2	951
1763 090	52x1,5	23.6	748.8	1022
1763 091	56x1,5	24.5	806.4	1107
1763 092	61x1,5	25.2	878.4	1190
1763 093	2x2,5	7.9	48.0	101
1763 094	3x2,5	8.4	72.0	126
1763 095	4x2,5	9.4	96.0	159
1763 096	5x2,5	10.3	120.0	196
1763 097	6x2,5	11.2	144.0	234
1763 098	7x2,5	11.2	168.0	247
1763 099	8x2,5	12.4	192.0	291
1763 100	10x2,5	14.5	240.0	359
1763 101	12x2,5	15.2	288.0	418
1763 102	14x2,5	16.0	336.0	475
1763 103	16x2,5	16.9	384.0	539
1763 104	18x2,5	17.9	432.0	605
1763 105	20x2,5	19.0	480.0	680
1763 106	21x2,5	19.0	504.0	691
1763 107	27x2,5	21.8	648.0	875
1763 108	30x2,5	22.6	720.0	959
1763 109	36x2,5	24.7	864.0	1155
1763 110	40x2,5	25.6	960.0	1261
1763 111	44x2,5	28.0	1056.0	1397
1763 112	48x2,5	28.5	1152.0	1504
1763 113	52x2,5	29.3	1248.0	1615
1763 114	56x2,5	30.2	1344.0	1734
1763 115	61x2,5	31.3	1464.0	1881
1763 116	2x4	9.1	76.8	142
1763 117	3x4	9.7	115.2	178
1763 118	4x4	10.6	153.6	221
1763 119	5x4	11.6	192.0	273
1763 120	7x4	12.9	268.8	355
1763 121	2x6	10.2	115.2	191
1763 122	3x6	10.8	172.8	242
1763 123	4x6	12.1	230.4	308
1763 124	5x6	13.3	288.0	383
1763 125	7x6	14.6	403.2	493
1763 126	2x10	13.2	192.0	326

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1763 127	3x10	14.1	288.0	418
1763 128	4x10	15.7	384.0	530
1763 129	5x10	17.3	480.0	660
1763 130	7x10	19.2	672.0	864
1763 131	2x16	15.6	307.2	484
1763 132	3x16	16.6	460.8	625
1763 133	4x16	18.5	614.4	797
1763 134	5x16	20.4	768.0	995
1763 135	7x16	22.6	1075.2	1307
1763 136	2x25	17.9	480.0	679
1763 137	3x25	19.3	720.0	897
1763 138	4x25	21.6	960.0	1150
1763 139	5x25	23.8	1200.0	1435
1763 140	7x25	26.4	1680.0	1894
1763 141	2x35	21.4	672.0	958
1763 142	3x35	22.9	1008.0	1254
1763 143	4x35	25.5	1344.0	1601
1763 144	5x35	28.4	1680.0	2015
1763 145	7x35	31.4	2352.0	2654
1763 146	2x50	26.6	960.0	1425
1763 147	3x50	28.6	1440.0	1865
1763 148	4x50	31.9	1920.0	2377
1763 149	5x50	35.5	2400.0	2994
1763 150	7x50	39.2	3360.0	3926
YSLY-OZ 300/500 V				
1764 001	2x0,5	4.8	9.6	33
1764 002	3x0,5	5.1	14.4	40
1764 003	4x0,5	5.5	19.2	47
1764 004	5x0,5	6.2	24.0	60
1764 005	7x0,5	6.7	33.6	73
1764 006	2x0,75	5.2	14.4	41
1764 007	3x0,75	5.4	21.6	48
1764 008	4x0,75	6.1	28.8	61
1764 009	5x0,75	6.6	36.0	74
1764 010	7x0,75	7.2	50.4	91
1764 011	2x1,0	5.5	19.2	48
1764 012	3x1,0	6.0	28.8	60
1764 013	4x1,0	6.6	38.4	74
1764 014	5x1,0	7.1	48.0	90
1764 015	7x1,0	7.7	67.2	112
1764 016	2x1,5	6.7	28.8	70
1764 017	3x1,5	7.0	43.2	84
1764 018	4x1,5	7.7	57.6	104
1764 019	5x1,5	8.4	72.0	127
1764 020	7x1,5	9.3	100.8	163
1764 021	2x2,5	7.9	48.0	101
1764 022	3x2,5	8.4	72.0	126
1764 023	4x2,5	9.4	96.0	159

**YSLY-JZ 300/500 V, YSLY-OZ 300/500 V  
YSLY-JB 300/500 V, YSLY-OB 300/500 V**

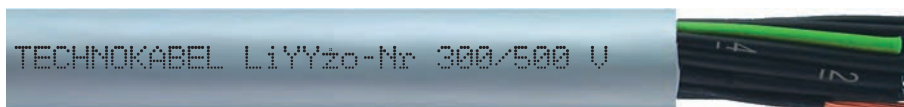
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1764 024	5x2,5	10.3	120.0	196
1764 025	7x2,5	11.2	168.0	247
1764 026	2x4	9.1	76.8	142
1764 027	3x4	9.7	115.2	178
1764 028	4x4	10.6	153.6	221
1764 029	5x4	11.6	192.0	273
1764 030	7x4	12.9	268.8	355
1764 031	2x6	10.2	115.2	191
1764 032	3x6	10.8	172.8	242
1764 033	4x6	12.1	230.4	308
1764 034	5x6	13.3	288.0	383
1764 035	7x6	14.6	403.2	493
1764 036	2x10	13.2	192.0	326
1764 037	3x10	14.1	288.0	418
1764 038	4x10	15.7	384.0	530
1764 039	5x10	17.3	480.0	660
1764 040	7x10	19.2	672.0	864
1764 041	2x16	15.6	307.2	484
1764 042	3x16	16.6	460.8	625
1764 043	4x16	18.5	614.4	797
1764 044	5x16	20.4	768.0	995
1764 045	7x16	22.6	1075.2	1307
1764 046	2x25	17.9	480.0	679
1764 047	3x25	19.3	720.0	897
1764 048	4x25	21.6	960.0	1150
1764 049	5x25	23.8	1200.0	1435
1764 050	7x25	26.4	1680.0	1894
1764 051	2x35	21.4	672.0	958
1764 052	3x35	22.9	1008.0	1254
1764 053	4x35	25.5	1344.0	1601
1764 054	5x35	28.4	1680.0	2015
1764 055	7x35	31.4	2352.0	2654
1764 056	2x50	26.6	960.0	1425
1764 057	3x50	28.6	1440.0	1865
1764 058	4x50	31.9	1920.0	2377
1764 059	5x50	35.5	2400.0	2994
1764 060	7x50	39.2	3360.0	3926
YSLY-JB 300/500 V				
1765 001	3x0,5	5.1	14.4	40
1765 002	5x0,5	6.2	24.0	60
1765 003	3x0,75	5.4	21.6	48
1765 004	5x0,75	6.6	36.0	74

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1765 005	3x1,0	6.0	28.8	60
1765 006	5x1,0	7.1	48.0	90
1765 007	3x1,5	7.0	43.2	84
1765 008	5x1,5	8.4	72.0	127
1765 009	3x2,5	8.4	72.0	126
1765 010	5x2,5	10.3	120.0	196
1765 011	3x4	9.7	115.2	178
1765 012	5x4	11.6	192.0	273
1765 013	3x6	10.8	172.8	242
1765 014	5x6	13.3	288.0	383
1765 015	3x10	14.1	288.0	418
1765 016	5x10	17.3	480.0	660
1765 017	3x16	16.6	460.8	625
1765 018	5x16	20.4	768.0	995
1765 019	3x25	19.3	720.0	897
1765 020	5x25	23.8	1200.0	1435
1765 021	3x35	22.9	1008.0	1254
1765 022	5x35	28.4	1680.0	2015
1765 023	3x50	28.6	1440.0	1865
1765 024	5x50	35.5	2400.0	2994
YSLY-OB 300/500 V				
1766 001	2x0,5	4.8	9.6	33
1766 002	4x0,5	5.5	19.2	47
1766 003	2x0,75	5.2	14.4	41
1766 004	4x0,75	6.1	28.8	61
1766 005	2x1,0	5.5	19.2	48
1766 006	4x1,0	6.6	38.4	74
1766 007	2x1,5	6.7	28.8	70
1766 008	4x1,5	7.7	57.6	104
1766 009	2x2,5	7.9	48.0	101
1766 010	4x2,5	9.4	96.0	159
1766 011	2x4	9.1	76.8	142
1766 012	4x4	10.6	153.6	221
1766 013	2x6	10.2	115.2	191
1766 014	4x6	12.1	230.4	308
1766 015	2x10	13.2	192.0	326
1766 016	4x10	15.7	384.0	530
1766 017	2x16	15.6	307.2	484
1766 018	4x16	18.5	614.4	797
1766 019	2x25	17.9	480.0	679
1766 020	4x25	21.6	960.0	1150
1766 021	2x35	21.4	672.0	958
1766 022	4x35	25.5	1344.0	1601
1766 023	2x50	26.6	960.0	1425
1766 024	4x50	31.9	1920.0	2377

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYY-Nr 300/500 V TECHNOFLEKS LiYYżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from -30°C to +80°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

### APPLICATIONS

**TECHNOFLEKS LiYY-Nr 300/500 V** and **TECHNOFLEKS LiYYżo-Nr 300/500 V** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiYYżo-Nr 300/500 V** cable,
- insulated conductors laid-up in layers in to a cable core, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYżo-Nr 300/500 V** cable,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYY-Nr-O 300/500 V** and **TECHNOFLEKS LiYYżo-Nr-O 300/500 V** – cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y-Nr 300/500 V** and **TECHNOFLEKS LiY11Yżo-Nr 300/500 V** – polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH-Nr 300/500 V** and **TECHNOFLEKS LiHHżo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYYv-Nr 300/500 V** and **TECHNOFLEKS LiYYvżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.



## TECHNOFLEKS LiYY-Nr 300/500 V TECHNOFLEKS LiYYżo-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0166 001	2 x 0,5	4.6	9.6	31
0166 002	3 x 0,5	4.9	14.4	37
0166 003	4 x 0,5	5.3	19.2	45
0166 044	5 x 0,5	5.8	24.0	55
0166 004	6 x 0,5	6.3	28.8	65
0166 049	7 x 0,5	6.3	33.6	67
0166 050	8 x 0,5	6.8	38.4	78
0166 045	10 x 0,5	7.9	48.0	94
0166 051	12 x 0,5	8.2	57.6	107
0166 052	14 x 0,5	8.6	67.2	121
0166 053	16 x 0,5	9.1	76.8	137
0166 054	18 x 0,5	10.0	86.4	162
0166 055	19 x 0,5	10.0	91.2	164
0166 056	21 x 0,5	10.5	100.8	181
0166 028	24 x 0,5	11.6	115.2	205
0166 057	25 x 0,5	12.1	120.0	224
0166 058	27 x 0,5	12.1	129.6	229
0166 024	30 x 0,5	12.5	144.0	250
0166 041	33 x 0,5	13.0	158.4	273
0166 059	34 x 0,5	13.5	163.2	291
0166 060	37 x 0,5	13.5	177.6	298
0166 061	40 x 0,5	14.2	192.0	328
0166 029	44 x 0,5	15.3	211.2	359
0166 005	48 x 0,5	15.6	230.4	385
0166 062	50 x 0,5	16.0	240.0	406
0166 063	56 x 0,5	16.5	268.8	441
0166 064	60 x 0,5	17.0	288.0	470
0166 019	2 x 0,75	5.0	14.4	38
0166 047	3 x 0,75	5.2	21.6	45
0166 026	4 x 0,75	5.7	28.8	56
0166 065	5 x 0,75	6.2	36.0	68
0166 048	6 x 0,75	6.8	43.2	81
0166 066	7 x 0,75	6.8	50.4	85

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0166 067	8 x 0,75	7.3	57.6	98
0166 068	10 x 0,75	8.6	72.0	120
0166 069	12 x 0,75	8.9	86.4	137
0166 033	14 x 0,75	9.8	100.8	164
0166 070	16 x 0,75	10.3	115.2	185
0166 034	18 x 0,75	10.9	129.6	207
0166 071	19 x 0,75	10.9	136.8	211
0166 072	21 x 0,75	11.4	151.2	233
0166 073	24 x 0,75	12.9	172.8	270
0166 074	25 x 0,75	13.2	180	288
0166 075	27 x 0,75	13.2	194.4	296
0166 035	30 x 0,75	13.6	216.0	323
0166 076	34 x 0,75	14.9	244.8	382
0166 077	37 x 0,75	14.9	266.4	393
0166 078	40 x 0,75	15.5	288.0	425
0166 046	44 x 0,75	16.7	316.8	465
0166 079	48 x 0,75	17.0	345.6	500
0166 080	50 x 0,75	17.5	360.0	528
0166 081	56 x 0,75	18.0	403.2	574
0166 082	60 x 0,75	18.8	432.0	622
0166 020	2 x 1,0	5.3	19.2	45
0166 042	3 x 1,0	5.6	28.8	55
0166 027	4 x 1,0	6.2	38.4	68
0166 036	5 x 1,0	6.7	48.0	84
0166 083	6 x 1,0	7.3	57.6	100
0166 031	7 x 1,0	7.3	67.2	105
0166 084	8 x 1,0	7.9	76.8	122
0166 032	10 x 1,0	9.3	96.0	149
0166 006	12 x 1,0	10.1	115.2	180
0166 037	14 x 1,0	10.6	134.4	204
0166 085	16 x 1,0	11.1	153.6	230
0166 086	18 x 1,0	12.0	172.8	263
0166 087	19 x 1,0	12.0	182.4	269

**TECHNOFLEKS LiYY-Nr 300/500 V**  
**TECHNOFLEKS LiYYżo-Nr 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0166 088	21 x 1,0	12.6	201.6	297
0166 023	24 x 1,0	14.2	230.4	343
0166 089	27 x 1,0	14.5	259.2	376
0166 039	30 x 1,0	15.0	288.0	411
0166 090	34 x 1,0	16.2	326.4	478
0166 091	37 x 1,0	16.2	355.2	494
0166 092	40 x 1,0	16.8	384.0	534
0166 093	44 x 1,0	18.4	422.4	593
0166 094	48 x 1,0	18.7	460.8	637
0166 095	50 x 1,0	19.2	480.0	673
0166 096	60 x 1,0	20.4	576.0	783
0166 021	2 x 1,5	5.9	28.8	59
0166 007	3 x 1,5	6.2	43.2	72
0166 008	4 x 1,5	6.8	57.6	90
0166 009	5 x 1,5	7.5	72.0	111
0166 097	6 x 1,5	8.1	86.4	132
0166 010	7 x 1,5	8.1	100.8	140
0166 098	8 x 1,5	8.8	115.2	163
0166 025	10 x 1,5	10.8	144.0	210
0166 099	12 x 1,5	11.2	172.8	240
0166 013	14 x 1,5	12.0	201.6	279
0166 100	16 x 1,5	12.6	230.4	315
0166 014	18 x 1,5	13.3	259.2	353
0166 101	19 x 1,5	13.3	273.6	362
0166 102	21 x 1,5	14.2	302.4	407
0166 103	24 x 1,5	15.8	345.6	462
0166 104	27 x 1,5	16.1	388.8	508
0166 040	30 x 1,5	16.7	432.0	557
0166 105	34 x 1,5	18.1	489.6	646
0166 106	37 x 1,5	18.1	532.8	672
0166 107	40 x 1,5	19.0	576.0	735
0166 108	48 x 1,5	20.9	691.2	867
0166 109	50 x 1,5	21.5	720.0	915
0166 110	60 x 1,5	23.0	864.0	1079
0166 022	2 x 2,5	6.7	48.0	82
0166 030	3 x 2,5	7.1	72.0	104
0166 016	4 x 2,5	7.8	96.0	130
0166 111	5 x 2,5	8.6	120.0	162
0166 112	6 x 2,5	9.8	144.0	202
0166 113	7 x 2,5	9.8	168.0	216
0166 114	8 x 2,5	10.7	192.0	251
0166 115	10 x 2,5	12.7	240.0	313
0166 017	12 x 2,5	13.2	288.0	361
0166 018	14 x 2,5	13.9	336.0	412
0166 116	16 x 2,5	14.8	384.0	474

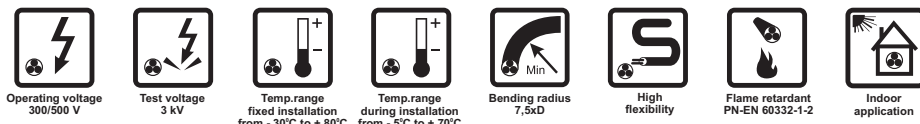
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0166 117	18 x 2,5	15.7	432.0	532
0166 118	19 x 2,5	15.7	456.0	546
0166 119	21 x 2,5	16.5	504.0	605
0166 120	25 x 2,5	19.0	600.0	739
0166 121	27 x 2,5	19.0	648.0	766
0166 122	30 x 2,5	19.7	720.0	841
0166 123	34 x 2,5	21.3	816.0	976
0166 124	37 x 2,5	21.3	888.0	1018
0166 125	40 x 2,5	22.1	960.0	1102
0166 126	44 x 2,5	24.2	1056.0	1218
0166 127	50 x 2,5	25.3	1200.0	1386
0166 128	60 x 2,5	26.9	1440.0	1625
0166 129	2 x 4,0	8.1	76.8	123
0166 130	3 x 4,0	8.6	115.2	157
0166 131	4 x 4,0	9.9	153.6	205
0166 132	5 x 4,0	10.9	192.0	255
0166 133	7 x 4,0	12.1	268.8	333
0166 134	3 x 6,0	10.4	172.8	235
0166 135	4 x 6,0	11.5	230.4	296
0166 136	5 x 6,0	12.8	288.0	374
0166 137	7 x 6,0	14.3	403.2	491
0166 138	3 x 10,0	13.2	288.0	396
0166 139	4 x 10,0	14.8	384.0	507
0166 140	5 x 10,0	16.3	480.0	632
0166 141	7 x 10,0	17.9	672.0	824
0166 142	3 x 16,0	15.8	460.8	603
0166 143	4 x 16,0	17.4	614.4	763
0166 144	5 x 16,0	19.4	768.0	961
0166 145	7 x 16,0	21.3	1075.2	1260
0166 146	3 x 25,0	18.5	720.0	872
0166 147	4 x 25,0	20.5	960.0	1110
0166 148	5 x 25,0	22.8	1200.0	1396
0166 149	3 x 35,0	21.8	1008.0	1213
0166 150	4 x 35,0	24.4	1344.0	1557
0166 151	5 x 35,0	27.0	1680.0	1950
0166 152	3 x 50,0	27.4	1440.0	1806
0166 153	4 x 50,0	30.4	1920.0	2296
0166 154	5 x 50,0	33.9	2400.0	2896

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYY 300/500 V TECHNOFLEKS LiYYżo 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYY 300/500 V** and **TECHNOFLEKS LiYYżo 300/500 V** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers in to a cable core, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYżo 300/500 V** cable,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYY-O 300/500 V** and **TECHNOFLEKS LiYYżo-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y 300/500 V** and **TECHNOFLEKS LiY11Yżo 300/500 V** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH 300/500 V** and **TECHNOFLEKS LiHHżo 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYYv 300/500 V** and **TECHNOFLEKS LiYYvżo 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LiYY 300/500 V**  
**TECHNOFLEKS LiYYżo 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0163 016	2 x 0,5	4.6	9.6	31
0163 017	3 x 0,5	4.9	14.4	37
0163 018	4 x 0,5	5.3	19.2	45
0163 019	5 x 0,5	5.8	24.0	55
0163 020	6 x 0,5	6.3	28.8	65
0163 021	7 x 0,5	6.3	33.6	67
0163 022	8 x 0,5	6.8	38.4	78
0163 007	10 x 0,5	7.9	48.0	94
0163 023	12 x 0,5	8.2	57.6	107
0163 024	14 x 0,5	8.6	67.2	121
0163 025	16 x 0,5	9.1	76.8	137
0163 026	18 x 0,5	10.0	86.4	162
0163 027	19 x 0,5	10.0	91.2	164
0163 031	21 x 0,5	10.5	100.8	181
0163 028	24 x 0,5	11.6	115.2	205
0163 029	25 x 0,5	12.1	120.0	224
0163 030	27 x 0,5	12.1	129.6	229
0163 033	30 x 0,5	12.5	144.0	250
0163 034	34 x 0,5	13.5	163.2	291
0163 035	37 x 0,5	13.5	177.6	298
0163 032	40 x 0,5	14.2	192.0	328
0163 036	44 x 0,5	15.3	211.2	359
0163 037	48 x 0,5	15.6	230.4	385
0163 038	50 x 0,5	16.0	240.0	406
0163 039	56 x 0,5	16.5	268.8	441
0163 040	60 x 0,5	17.0	288.0	470
0163 041	2 x 0,75	5.0	14.4	38
0163 001	3 x 0,75	5.2	21.6	45
0163 011	4 x 0,75	5.7	28.8	56
0163 042	5 x 0,75	6.2	36.0	68
0163 043	6 x 0,75	6.8	43.2	81
0163 009	7 x 0,75	6.8	50.4	85
0163 044	8 x 0,75	7.3	57.6	98

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0163 045	10 x 0,75	8.6	72.0	120
0163 046	12 x 0,75	8.9	86.4	137
0163 047	14 x 0,75	9.8	100.8	164
0163 048	16 x 0,75	10.3	115.2	185
0163 049	18 x 0,75	10.9	129.6	207
0163 050	19 x 0,75	10.9	136.8	211
0163 051	21 x 0,75	11.4	151.2	233
0163 052	24 x 0,75	12.9	172.8	270
0163 053	25 x 0,75	13.2	180.0	288
0163 054	27 x 0,75	13.2	194.4	296
0163 055	30 x 0,75	13.6	216.0	323
0163 056	34 x 0,75	14.9	244.8	382
0163 057	37 x 0,75	14.9	266.4	393
0163 058	40 x 0,75	15.5	288.0	425
0163 059	44 x 0,75	16.7	316.8	465
0163 060	48 x 0,75	17.0	345.6	500
0163 061	50 x 0,75	17.5	360.0	528
0163 062	56 x 0,75	18.0	403.2	574
0163 063	60 x 0,75	18.8	432.0	622
0163 014	2 x 1,0	5.3	19.2	45
0163 064	3 x 1,0	5.6	28.8	55
0163 065	4 x 1,0	6.2	38.4	68
0163 066	5 x 1,0	6.7	48.0	84
0163 067	6 x 1,0	7.3	57.6	100
0163 008	7 x 1,0	7.3	67.2	105
0163 068	8 x 1,0	7.9	76.8	122
0163 069	10 x 1,0	9.3	96.0	149
0163 070	12 x 1,0	10.1	115.2	180
0163 071	14 x 1,0	10.6	134.4	204
0163 006	16 x 1,0	11.1	153.6	230
0163 072	18 x 1,0	12.0	172.8	263
0163 073	19 x 1,0	12.0	182.4	269
0163 074	21 x 1,0	12.6	201.6	297

**TECHNOFLEKS LiYY 300/500 V**  
**TECHNOFLEKS LiYYżo 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0163 005	24 x 1,0	14.2	230.4	343
0163 075	27 x 1,0	14.5	259.2	376
0163 076	30 x 1,0	15.0	288.0	411
0163 077	34 x 1,0	16.2	326.4	478
0163 078	37 x 1,0	16.2	355.2	494
0163 079	40 x 1,0	16.8	384.0	534
0163 080	44 x 1,0	18.4	422.4	593
0163 081	48 x 1,0	18.7	460.8	637
0163 082	50 x 1,0	19.2	480.0	673
0163 083	60 x 1,0	20.4	576.0	783
0163 084	2 x 1,5	5.9	28.8	59
0163 002	3 x 1,5	6.2	43.2	72
0163 003	4 x 1,5	6.8	57.6	90
0163 085	5 x 1,5	7.5	72.0	111
0163 086	6 x 1,5	8.1	86.4	132
0163 087	7 x 1,5	8.1	100.8	140
0163 088	8 x 1,5	8.8	115.2	163
0163 089	10 x 1,5	10.8	144.0	210
0163 090	12 x 1,5	11.2	172.8	240
0163 091	14 x 1,5	12.0	201.6	279
0163 092	16 x 1,5	12.6	230.4	315
0163 093	18 x 1,5	13.3	259.2	353
0163 095	19 x 1,5	13.3	273.6	362
0163 096	21 x 1,5	14.2	302.4	407
0163 097	24 x 1,5	15.8	345.6	462
0163 098	27 x 1,5	16.1	388.8	508
0163 099	30 x 1,5	16.7	432.0	557
0163 100	34 x 1,5	18.1	489.6	646
0163 101	37 x 1,5	18.1	532.8	672
0163 102	40 x 1,5	19.0	576.0	735
0163 103	48 x 1,5	20.9	691.2	867
0163 104	50 x 1,5	21.5	720.0	915
0163 105	60 x 1,5	23.0	864.0	1079
0163 094	2 x 2,5	6.7	48.0	82
0163 106	3 x 2,5	7.1	72.0	104
0163 010	4 x 2,5	7.8	96.0	130
0163 107	5 x 2,5	8.6	120.0	162
0163 108	6 x 2,5	9.8	144.0	202
0163 109	7 x 2,5	9.8	168.0	216
0163 110	8 x 2,5	10.7	192.0	251
0163 111	10 x 2,5	12.7	240.0	313
0163 112	12 x 2,5	13.2	288.0	361
0163 113	14 x 2,5	13.9	336.0	412
0163 114	16 x 2,5	14.8	384.0	474
0163 115	18 x 2,5	15.7	432.0	532

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0163 116	19 x 2,5	15.7	456.0	546
0163 117	21 x 2,5	16.5	504.0	605
0163 118	25 x 2,5	19.0	600.0	739
0163 119	27 x 2,5	19.0	648.0	766
0163 120	30 x 2,5	19.7	720.0	841
0163 121	34 x 2,5	21.3	816.0	976
0163 122	37 x 2,5	21.3	888.0	1018
0163 123	40 x 2,5	22.1	960.0	1102
0163 124	44 x 2,5	24.2	1056.0	1218
0163 125	50 x 2,5	25.3	1200.0	1386
0163 126	60 x 2,5	26.9	1440.0	1625
0163 127	2 x 4,0	8.1	76.8	123
0163 128	3 x 4,0	8.6	115.2	157
0163 129	4 x 4,0	9.9	153.6	205
0163 130	5 x 4,0	10.9	192.0	255
0163 131	7 x 4,0	12.1	268.8	333
0163 132	3 x 6,0	10.4	172.8	235
0163 133	4 x 6,0	11.5	230.4	296
0163 134	5 x 6,0	12.8	288.0	374
0163 135	7 x 6,0	14.3	403.2	491
0163 136	3 x 10,0	13.2	288.0	396
0163 137	4 x 10,0	14.8	384.0	507
0163 138	5 x 10,0	16.3	480.0	632
0163 139	7 x 10,0	17.9	672.0	824
0163 140	3 x 16,0	15.8	460.8	603
0163 141	4 x 16,0	17.4	614.4	763
0163 142	5 x 16,0	19.4	768.0	961
0163 143	7 x 16,0	21.3	1075.2	1260
0163 144	3 x 25,0	18.5	720.0	872
0163 145	4 x 25,0	20.5	960.0	1110
0163 146	5 x 25,0	22.8	1200.0	1396
0163 147	3 x 35,0	21.8	1008.0	1213
0163 148	4 x 35,0	24.4	1344.0	1557
0163 149	5 x 35,0	27.0	1680.0	1950
0163 150	3 x 50,0	27.4	1440.0	1806
0163 151	4 x 50,0	30.4	1920.0	2296
0163 152	5 x 50,0	33.9	2400.0	2896

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOFLEKS LiYY-P 300/500 V**  
**TECHNOFLEKS LiYY-P-Nr 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

**APPLICATIONS**

**TECHNOFLEKS LiYY-P 300/500 V** and **TECHNOFLEKS LiYY-P-Nr 300/500 V** are multipair flexible cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYY-P 300/500 V**, black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYY-P-Nr 300/500 V**,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOFLEKS LiYY-P-O 300/500 V** and **TECHNOFLEKS LiYY-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y-P 300/500 V** and **TECHNOFLEKS LiY11Y-P-Nr 300/500 V** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH-P 300/500 V** and **TECHNOFLEKS LiHH-P-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYYv-P 300/500 V** and **TECHNOFLEKS LiYYv-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LiYY-P 300/500 V**  
**TECHNOFLEKS LiYY-P-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	from - 30 to + 80°C
Voltage test	3.0 kV rms	for fixed installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1065 001	2 x 2 x 0,5	7.0	19.2	53
1065 002	3 x 2 x 0,5	7.4	28.8	63
1065 003	4 x 2 x 0,5	8.2	38.4	79
1065 004	5 x 2 x 0,5	9.0	48.0	94
1065 005	6 x 2 x 0,5	10.2	57.6	120
1065 006	7 x 2 x 0,5	10.2	67.2	133
1065 007	8 x 2 x 0,5	10.9	76.8	148
1065 008	10 x 2 x 0,5	12.6	96.0	187
1065 009	12 x 2 x 0,5	13.1	115.2	214
1065 010	16 x 2 x 0,5	15.1	153.6	282
1065 011	18 x 2 x 0,5	15.8	172.8	311
1065 012	20 x 2 x 0,5	16.6	192.0	340
1065 013	25 x 2 x 0,5	18.5	240.0	422
1065 014	30 x 2 x 0,5	20.0	288.0	494
1065 015	40 x 2 x 0,5	22.9	384.0	647
1065 016	50 x 2 x 0,5	25.4	480.0	787
1065 017	2 x 2 x 0,75	7.6	28.8	69
1065 018	3 x 2 x 0,75	8.1	43.2	80
1065 019	4 x 2 x 0,75	8.9	57.6	100
1065 020	5 x 2 x 0,75	10.2	72.0	131
1065 021	6 x 2 x 0,75	11.1	86.4	152
1065 022	7 x 2 x 0,75	11.1	100.8	169
1065 023	8 x 2 x 0,75	12.1	115.2	196
1065 024	10 x 2 x 0,75	13.7	144.0	239
1065 025	12 x 2 x 0,75	14.6	172.8	284
1065 026	16 x 2 x 0,75	16.5	230.4	364
1065 027	20 x 2 x 0,75	18.4	288.0	452
1065 028	2 x 2 x 1,0	8.2	38.4	81
1065 029	3 x 2 x 1,0	8.7	57.6	97
1065 030	4 x 2 x 1,0	10.0	76.8	133
1065 031	5 x 2 x 1,0	11.0	96.0	160
1065 032	6 x 2 x 1,0	12.3	115.2	193
1065 033	7 x 2 x 1,0	12.3	134.4	215

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1065 034	8 x 2 x 1,0	13.1	153.6	242
1065 035	10 x 2 x 1,0	15.1	192.0	303
1065 036	12 x 2 x 1,0	15.8	230.4	352
1065 037	14 x 2 x 1,0	16.9	268.8	402
1065 038	16 x 2 x 1,0	17.9	307.2	453
1065 039	18 x 2 x 1,0	19.0	345.6	512
1065 040	20 x 2 x 1,0	19.9	384.0	562
1065 041	2 x 2 x 1,5	9.2	57.6	103
1065 042	3 x 2 x 1,5	10.1	86.4	138
1065 043	4 x 2 x 1,5	11.1	115.2	173
1065 044	5 x 2 x 1,5	12.5	144.0	216
1065 045	6 x 2 x 1,5	13.6	172.8	253
1065 046	7 x 2 x 1,5	13.6	201.6	284
1065 047	8 x 2 x 1,5	14.7	230.4	328
1065 048	10 x 2 x 1,5	16.8	288.0	402
1065 049	12 x 2 x 1,5	17.6	345.6	468
1065 050	14 x 2 x 1,5	19.0	403.2	547
1065 051	16 x 2 x 1,5	20.2	460.8	617
1065 052	18 x 2 x 1,5	21.3	518.4	686
1065 053	20 x 2 x 1,5	22.3	576.0	754
1065 054	2 x 2 x 2,5	11.0	96.0	158
1065 055	3 x 2 x 2,5	11.7	144.0	198
1065 056	4 x 2 x 2,5	13.1	192.0	258
1065 057	5 x 2 x 2,5	14.7	240.0	321
1065 058	6 x 2 x 2,5	16.0	288.0	377
1065 059	7 x 2 x 2,5	16.0	336.0	426
1065 060	8 x 2 x 2,5	17.1	384.0	481
1065 061	10 x 2 x 2,5	19.7	480.0	602
1065 062	12 x 2 x 2,5	20.7	576.0	704
1065 063	14 x 2 x 2,5	22.2	672.0	810
1065 064	16 x 2 x 2,5	23.7	768.0	924

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**YSLCY-JZ 300/500 V, YSLCY-OZ 300/500 V,  
YSLCY-JB 300/500 V, YSLCY-OB 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**YSLCY-JZ 300/500 V, YSLCY-OZ 300/500 V, YSLCY-JB 300/500 V** and **YSLCY-OB 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code:
  - YSLCY-OZ 300/500 V** - black and white conductor number printed on it,
  - YSLCY-OB 300/500 V** - colours in accordance with PN-HD 308 standard,
  - green-yellow protective conductor located in the outer layer in **YSLCY-JZ 300/500 V** and **YSLCY-JB 300/500 V** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**YSLCY-JZ OR 300/500 V, YSLCY-OZ OR 300/500 V, YSLCY-JB OR 300/500 V** i **YSLCY-OB OR 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**HSLCH-JZ 300/500 V, HSLCH-OZ 300/500 V, HSLCH-JB 300/500 V** i **HSLCH-OB 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.



**YSLCY-JZ 300/500 V, YSLCY-OZ 300/500 V,  
YSLCY-JB 300/500 V, YSLCY-OB 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 40 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit in work conditions	+ 70°C	Minimum bending radius	10 x cable diameter
at short-circuit	+ 150°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
YSLCY-JZ 300/500 V				
1771 001	2x0,5	5.3	17.6	37
1771 002	3x0,5	5.6	22.5	44
1771 003	4x0,5	6.2	28.9	56
1771 004	5x0,5	6.7	33.7	66
1771 005	6x0,5	7.2	39.4	77
1771 006	7x0,5	7.2	44.2	80
1771 007	8x0,5	7.7	50.0	92
1771 008	10x0,5	9.1	65.9	117
1771 009	12x0,5	9.4	76.6	132
1771 010	14x0,5	9.8	87.0	147
1771 011	16x0,5	10.3	98.5	165
1771 012	18x0,5	10.8	108.7	182
1771 013	20x0,5	11.3	119.6	201
1771 014	21x0,5	11.3	124.4	203
1771 015	27x0,5	12.9	156.8	254
1771 016	30x0,5	13.3	172.3	275
1771 017	36x0,5	14.3	203.7	324
1771 018	40x0,5	14.8	224.1	352
1771 019	44x0,5	16.2	253.3	396
1771 020	48x0,5	16.5	273.8	424
1771 021	52x0,5	16.9	293.9	452
1771 022	56x0,5	17.4	314.7	483
1771 023	61x0,5	17.9	340.2	517
1771 024	2x0,75	5.7	22.5	43
1771 025	3x0,75	6.1	30.0	55
1771 026	4x0,75	6.6	38.5	67
1771 027	5x0,75	7.1	46.4	80
1771 028	6x0,75	7.7	54.8	95
1771 029	7x0,75	7.7	62.0	99
1771 030	8x0,75	8.3	74.0	117
1771 031	10x0,75	9.8	91.8	144
1771 032	12x0,75	10.1	106.9	163
1771 033	14x0,75	10.6	122.6	183
1771 034	16x0,75	11.1	138.3	206
1771 035	18x0,75	11.7	154.2	229
1771 036	20x0,75	12.4	169.9	258

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
1771 037	21x0,75	12.4	177.1	262
1771 038	27x0,75	14.0	224.5	322
1771 039	30x0,75	14.4	247.1	350
1771 040	36x0,75	15.8	300.1	427
1771 041	40x0,75	16.4	330.8	465
1771 042	44x0,75	17.6	363.2	505
1771 043	48x0,75	17.9	393.0	542
1771 044	52x0,75	18.6	423.3	588
1771 045	56x0,75	19.1	453.7	628
1771 046	61x0,75	19.7	491.5	674
1771 047	2x1,0	6.2	28.9	53
1771 048	3x1,0	6.5	38.5	65
1771 049	4x1,0	7.1	48.8	79
1771 050	5x1,0	7.6	59.4	96
1771 051	6x1,0	8.3	74.0	118
1771 052	7x1,0	8.3	83.6	123
1771 053	8x1,0	9.1	94.7	145
1771 054	10x1,0	10.5	117.7	173
1771 055	12x1,0	10.9	137.8	198
1771 056	14x1,0	11.4	158.8	224
1771 057	16x1,0	12.1	178.8	257
1771 058	18x1,0	12.8	199.9	287
1771 059	20x1,0	13.4	220.5	317
1771 060	21x1,0	13.4	230.1	322
1771 061	27x1,0	15.4	298.8	410
1771 062	30x1,0	15.9	329.2	447
1771 063	36x1,0	17.1	390.5	528
1771 064	40x1,0	17.7	430.8	575
1771 065	44x1,0	19.3	473.5	635
1771 066	48x1,0	19.6	512.8	682
1771 067	52x1,0	20.1	552.8	730
1771 068	56x1,0	20.7	593.0	782
1771 069	61x1,0	21.5	642.9	848
1771 070	2x1,5	7.2	39.4	67
1771 071	3x1,5	7.5	54.4	84
1771 072	4x1,5	8.3	74.0	108

**YSLCY-JZ 300/500 V, YSLCY-OZ 300/500 V,  
YSLCY-JB 300/500 V, YSLCY-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1771 073	5x1,5	9.2	91.0	136
1771 074	6x1,5	9.9	106.4	160
1771 075	7x1,5	9.9	120.8	167
1771 076	8x1,5	10.7	137.3	193
1771 077	10x1,5	12.6	170.5	237
1771 078	12x1,5	13.0	200.3	270
1771 079	14x1,5	13.6	230.6	306
1771 080	16x1,5	14.4	261.5	346
1771 081	18x1,5	15.4	298.8	400
1771 082	20x1,5	16.2	330.1	443
1771 083	21x1,5	16.2	344.5	449
1771 084	27x1,5	18.5	437.4	563
1771 085	30x1,5	19.1	482.5	614
1771 086	36x1,5	20.6	573.5	727
1771 087	40x1,5	21.5	633.3	802
1771 088	44x1,5	23.4	718.8	896
1771 089	48x1,5	23.8	778.0	962
1771 090	52x1,5	24.7	838.6	1041
1771 091	56x1,5	25.4	899.1	1112
1771 092	61x1,5	26.1	974.0	1193
1771 093	2x2,5	8.5	64.9	95
1771 094	3x2,5	9.2	91.0	127
1771 095	4x2,5	10.0	116.2	156
1771 096	5x2,5	10.9	142.6	192
1771 097	6x2,5	11.8	168.9	229
1771 098	7x2,5	11.8	192.9	240
1771 099	8x2,5	13.0	219.5	283
1771 100	10x2,5	15.4	279.6	354
1771 101	12x2,5	15.9	329.2	405
1771 102	14x2,5	16.7	379.7	460
1771 103	16x2,5	17.6	430.4	522
1771 104	18x2,5	18.8	481.5	592
1771 105	20x2,5	19.7	532.3	657
1771 106	21x2,5	19.7	556.3	666
1771 107	27x2,5	22.5	708.4	836
1771 108	30x2,5	23.5	805.6	937
1771 109	36x2,5	25.6	957.6	1122
1771 110	40x2,5	26.5	1057.3	1220
1771 111	44x2,5	29.1	1191.0	1373
1771 112	48x2,5	29.6	1290.1	1475
1771 113	52x2,5	30.6	1389.9	1593
1771 114	56x2,5	31.5	1490.7	1706
1771 115	61x2,5	32.4	1615.4	1831
1771 116	2x4	9.7	96.3	133
1771 117	3x4	10.3	136.9	176
1771 118	4x4	11.2	177.0	219
1771 119	5x4	12.4	217.9	278
1771 120	7x4	13.5	297.6	353
1771 121	2x6	10.8	137.5	177
1771 122	3x6	11.4	197.2	237
1771 123	4x6	12.7	257.5	306
1771 124	5x6	13.9	317.8	382
1771 125	7x6	15.5	443.2	506

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1771 126	2x10	13.8	221.6	286
1771 127	3x10	14.7	319.9	390
1771 128	4x10	16.4	426.8	512
1771 129	5x10	18.0	527.9	642
1771 130	7x10	19.9	725.0	841
1771 131	2x16	16.3	349.6	427
1771 132	3x16	17.3	506.3	588
1771 133	4x16	19.2	665.2	763
1771 134	5x16	21.3	824.7	970
1771 135	7x16	23.5	1160.8	1290
1771 136	2x25	18.8	529.5	601
1771 137	3x25	20.0	773.3	838
1771 138	4x25	22.3	1019.8	1094
1771 139	5x25	24.9	1290.6	1410
1771 140	7x25	27.7	1807.6	1890
1771 141	2x35	22.1	731.2	823
1771 142	3x35	23.8	1094.8	1179
1771 143	4x35	26.4	1440.9	1531
1771 144	5x35	29.5	1817.1	1974
1771 145	7x35	32.5	2503.9	2607
YSLCY-OZ 300/500 V				
1772 001	2x0,5	5.3	17.6	37
1772 002	3x0,5	5.6	22.5	44
1772 003	4x0,5	6.2	28.9	56
1772 004	5x0,5	6.7	33.7	66
1772 005	7x0,5	7.2	44.2	80
1772 006	2x0,75	5.7	22.5	43
1772 007	3x0,75	6.1	30.0	55
1772 008	4x0,75	6.6	38.5	67
1772 009	5x0,75	7.1	46.4	80
1772 010	7x0,75	7.7	62.0	99
1772 011	2x1,0	6.2	28.9	53
1772 012	3x1,0	6.5	38.5	65
1772 013	4x1,0	7.1	48.8	79
1772 014	5x1,0	7.6	59.4	96
1772 015	7x1,0	8.3	83.6	123
1772 016	2x1,5	7.2	39.4	67
1772 017	3x1,5	7.5	54.4	84
1772 018	4x1,5	8.3	74.0	108
1772 019	5x1,5	9.2	91.0	136
1772 020	7x1,5	9.9	120.8	167
1772 021	2x2,5	8.5	64.9	95
1772 022	3x2,5	9.2	91.0	127
1772 023	4x2,5	10.0	116.2	156
1772 024	5x2,5	10.9	142.6	192
1772 025	7x2,5	11.8	192.9	240
1772 026	2x4	9.7	96.3	133

**YSLCY-JZ 300/500 V, YSLCY-OZ 300/500 V,  
YSLCY-JB 300/500 V, YSLCY-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1772 027	3x4	10.3	136.9	176
1772 028	4x4	11.2	177.0	219
1772 029	5x4	12.4	217.9	278
1772 030	7x4	13.5	297.6	353
1772 031	2x6	10.8	137.5	177
1772 032	3x6	11.4	197.2	237
1772 033	4x6	12.7	257.5	306
1772 034	5x6	13.9	317.8	382
1772 035	7x6	15.5	443.2	506
1772 036	2x10	13.8	221.6	286
1772 037	3x10	14.7	319.9	390
1772 038	4x10	16.4	426.8	512
1772 039	5x10	18.0	527.9	642
1772 040	7x10	19.9	725.0	841
1772 041	2x16	16.3	349.6	427
1772 042	3x16	17.3	506.3	588
1772 043	4x16	19.2	665.2	763
1772 044	5x16	21.3	824.7	970
1772 045	7x16	23.5	1160.8	1290
1772 046	2x25	18.8	529.5	601
1772 047	3x25	20.0	773.3	838
1772 048	4x25	22.3	1019.8	1094
1772 049	5x25	24.9	1290.6	1410
1772 050	7x25	27.7	1807.6	1890
1772 051	2x35	22.1	731.2	823
1772 052	3x35	23.8	1094.8	1179
1772 053	4x35	26.4	1440.9	1531
1772 054	5x35	29.5	1817.1	1974
1772 055	7x35	32.5	2503.9	2607
YSLCY-JB 300/500 V				
1773 001	3x0,5	5.6	22.5	44
1773 002	5x0,5	6.7	33.7	66
1773 003	3x0,75	6.1	30.0	55
1773 004	5x0,75	7.1	46.4	80
1773 005	3x1,0	6.5	38.5	65
1773 006	5x1,0	7.6	59.4	96

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1773 007	3x1,5	7.5	54.4	84
1773 008	5x1,5	9.2	91.0	136
1773 009	3x2,5	9.2	91.0	127
1773 010	5x2,5	10.9	142.6	192
1773 011	3x4	10.3	136.9	176
1773 012	5x4	12.4	217.9	278
1773 013	3x6	11.4	197.2	237
1773 014	5x6	13.9	317.8	382
1773 015	3x10	14.7	319.9	390
1773 016	5x10	18.0	527.9	642
1773 017	3x16	17.3	506.3	588
1773 018	5x16	21.3	824.7	970
1773 019	3x25	20.0	773.3	838
1773 020	5x25	24.9	1290.6	1410
1773 021	3x35	23.8	1094.8	1179
1773 022	5x35	29.5	1817.1	1974
YSLCY-OB 300/500 V				
1774 001	2x0,5	5.3	17.6	37
1774 002	4x0,5	6.2	28.9	56
1774 003	2x0,75	5.7	22.5	43
1774 004	4x0,75	6.6	38.5	67
1774 005	2x1,0	6.2	28.9	53
1774 006	4x1,0	7.1	48.8	79
1774 007	2x1,5	7.2	39.4	67
1774 008	4x1,5	8.3	74.0	108
1774 009	2x2,5	8.5	64.9	95
1774 010	4x2,5	10.0	116.2	156
1774 011	2x4	9.7	96.3	133
1774 012	4x4	11.2	177.0	219
1774 013	2x6	10.8	137.5	177
1774 014	4x6	12.7	257.5	306
1774 015	2x10	13.8	221.6	286
1774 016	4x10	16.4	426.8	512
1774 017	2x16	16.3	349.6	427
1774 018	4x16	19.2	665.2	763
1774 019	2x25	18.8	529.5	601
1774 020	4x25	22.3	1019.8	1094
1774 021	2x35	22.1	731.2	823
1774 022	4x35	26.4	1440.9	1531

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYCY-Nr 300/500 V TECHNOFLEKS LiYCYżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYCY-Nr 300/500 V** and **TECHNOFLEKS LiYCYżo-Nr 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiYCYżo-Nr 300/500 V** cable,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYCYżo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYCY-Nr-O 300/500 V** and **TECHNOFLEKS LiYCYżo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiYCY11Y-Nr 300/500 V** and **TECHNOFLEKS LiYCY11Yżo-Nr 300/500 V** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHCH-Nr 300/500 V** and **TECHNOFLEKS LiHCHżo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYCYv-Nr 300/500 V** and **TECHNOFLEKS LiYCYvżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LiYCY-Nr 300/500 V**  
**TECHNOFLEKS LiYCYżo-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions at short-circuit	+ 70°C + 150°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250 DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0125 086	1 x 0,5	3.5	8.8	21
0125 014	2 x 0,5	5.1	17.6	37
0125 087	3 x 0,5	5.4	22.5	44
0125 032	4 x 0,5	5.8	28.9	53
0125 088	5 x 0,5	6.3	33.7	63
0125 021	6 x 0,5	6.8	39.4	74
0125 071	7 x 0,5	6.8	44.2	76
0125 045	8 x 0,5	7.3	50.0	88
0125 030	10 x 0,5	8.5	65.9	108
0125 033	12 x 0,5	8.8	76.6	123
0125 053	14 x 0,5	9.2	87.0	138
0125 020	16 x 0,5	10.1	98.5	165
0125 034	18 x 0,5	10.6	108.7	183
0125 089	19 x 0,5	10.6	113.5	185
0125 054	21 x 0,5	11.1	124.4	204
0125 019	24 x 0,5	12.4	141.7	234
0125 090	25 x 0,5	12.7	147.2	250
0125 046	27 x 0,5	12.7	156.8	255
0125 047	30 x 0,5	13.1	172.3	277
0125 091	34 x 0,5	14.3	194.1	327
0125 049	36 x 0,5	14.3	203.7	332
0125 092	37 x 0,5	14.3	208.5	335
0125 050	40 x 0,5	14.8	224.1	360
0125 093	41 x 0,5	15.4	237.1	388
0125 094	1 x 0,75	3.6	12.0	24
0125 012	2 x 0,75	5.5	22.5	43
0125 051	3 x 0,75	5.7	30.0	52
0125 058	4 x 0,75	6.2	38.5	63
0125 057	5 x 0,75	6.7	46.4	76
0125 037	6 x 0,75	7.3	54.8	91
0125 037	7 x 0,75	7.3	62.0	95
0125 095	8 x 0,75	7.9	74.0	113

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0125 072	10 x 0,75	9.2	91.8	135
0125 026	12 x 0,75	9.9	106.9	163
0125 073	14 x 0,75	10.4	122.6	184
0125 018	16 x 0,75	10.9	138.3	206
0125 027	18 x 0,75	11.5	154.2	229
0125 074	19 x 0,75	11.5	161.4	233
0125 075	21 x 0,75	12.2	177.1	263
0125 076	24 x 0,75	13.5	202.1	295
0125 028	25 x 0,75	13.8	210.1	315
0125 096	27 x 0,75	13.8	224.5	323
0125 077	30 x 0,75	14.4	247.1	358
0125 078	34 x 0,75	15.6	285.7	421
0125 097	1 x 1,0	3.8	14.4	27
0125 003	2 x 1,0	5.8	28.9	50
0125 013	3 x 1,0	6.1	38.5	62
0125 004	4 x 1,0	6.7	48.8	76
0125 024	5 x 1,0	7.2	59.4	93
0125 022	6 x 1,0	7.9	74.0	113
0125 025	7 x 1,0	7.9	83.6	119
0125 067	8 x 1,0	8.5	94.7	137
0125 005	10 x 1,0	10.3	117.7	174
0125 029	12 x 1,0	10.7	137.8	199
0125 035	14 x 1,0	11.2	158.8	224
0125 006	16 x 1,0	11.7	178.8	252
0125 068	18 x 1,0	12.6	199.9	288
0125 036	19 x 1,0	12.6	209.5	293
0125 042	21 x 1,0	13.2	230.1	324
0125 061	24 x 1,0	14.8	262.5	371
0125 007	25 x 1,0	15.2	279.6	402
0125 052	27 x 1,0	15.2	298.8	413
0125 040	30 x 1,0	15.7	329.2	449

**TECHNOFLEKS LiYCY-Nr 300/500 V**  
**TECHNOFLEKS LiYCYżo-Nr 300/500 V**

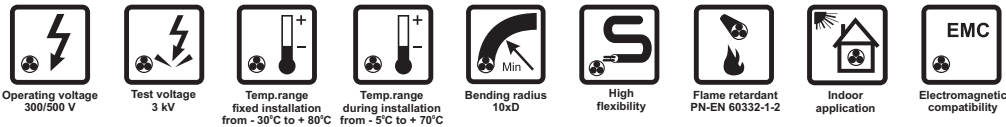
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0125 098	1 x 1,5	4.1	19.8	33
0125 008	2 x 1,5	6.4	38.6	61
0125 009	3 x 1,5	6.7	53.6	78
0125 010	4 x 1,5	7.3	69.2	97
0125 038	5 x 1,5	8.1	88.9	124
0125 056	6 x 1,5	8.7	105.4	147
0125 001	7 x 1,5	8.7	119.8	155
0125 079	8 x 1,5	9.8	135.4	189
0125 043	10 x 1,5	11.4	168.4	226
0125 011	12 x 1,5	12.0	198.2	266
0125 055	14 x 1,5	12.6	228.7	301
0125 063	16 x 1,5	13.2	258.9	340
0125 099	18 x 1,5	13.9	289.5	379
0125 023	19 x 1,5	13.9	303.9	388
0125 100	21 x 1,5	14.8	334.5	436
0125 060	24 x 1,5	16.5	389.3	498
0125 101	25 x 1,5	16.8	404.6	529
0125 102	1 x 2,5	4.5	30.4	44
0125 015	2 x 2,5	7.2	59.4	83
0125 044	3 x 2,5	7.6	84.2	109
0125 031	4 x 2,5	8.4	113.7	141
0125 080	5 x 2,5	9.2	139.8	175
0125 103	6 x 2,5	10.4	165.8	219
0125 104	7 x 2,5	10.4	189.8	233
0125 105	8 x 2,5	11.3	216.4	270
0125 069	10 x 2,5	13.3	268.8	330
0125 106	12 x 2,5	13.8	318.1	381
0125 081	14 x 2,5	14.7	367.9	442
0125 070	16 x 2,5	15.5	424.6	507
0125 082	18 x 2,5	16.4	475.4	567
0125 107	2 x 4,0	8.7	95.8	123

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0125 083	3 x 4,0	9.2	135.0	163
0125 084	4 x 4,0	10.5	175.7	216
0125 108	5 x 4,0	11.5	216.6	268
0125 109	7 x 4,0	12.7	296.0	350
0125 110	3 x 6,0	11.0	196.2	240
0125 111	4 x 6,0	12.3	256.6	310
0125 112	5 x 6,0	13.4	317.0	386
0125 113	7 x 6,0	14.9	435.6	507
0125 114	3 x 10,0	13.8	318.1	392
0125 085	4 x 10,0	15.5	424.6	516
0125 115	5 x 10,0	17.0	525.2	645
0125 116	7 x 10,0	18.8	722.2	850
0125 117	3 x 16,0	16.5	504.5	593
0125 118	4 x 16,0	18.1	663.0	761
0125 119	5 x 16,0	20.1	822.2	967
0125 120	7 x 16,0	22.0	1135.3	1270
0125 121	3 x 25,0	19.2	771.4	846
0125 122	4 x 25,0	21.2	1017.6	1093
0125 123	5 x 25,0	23.7	1287.3	1411
0125 124	3 x 35,0	22.9	1091.9	1191
0125 125	4 x 35,0	25.3	1438.0	1536
0125 126	5 x 35,0	28.1	1812.9	1964
0125 127	3 x 50,0	28.5	1575.0	1737
0125 128	4 x 50,0	31.7	2070.9	2265
0125 129	5 x 50,0	35.2	2600.9	2888

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LIYCY 300/500 V TECHNOFLEKS LIYCYżo 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LIYCY 300/500 V** and **TECHNOFLEKS LIYCYżo 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LIYCYżo 300/500 V** cable,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LIYCY-O 300/500 V** i **TECHNOFLEKS LIYCYżo-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LIYCY11Y 300/500 V** i **TECHNOFLEKS LIYCY11Yżo 300/500 V** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LIHCH 300/500 V** i **TECHNOFLEKS LIHCHżo 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LIYCYv 300/500 V** i **TECHNOFLEKS LIYCYvżo 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LIYCY 300/500 V**  
**TECHNOFLEKS LIYCYżo 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	from - 30 to + 80°C
Voltage test	3.0 kV rms	for fixed installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0114 039	1 x 0,5	3.5	8.8	21
0114 026	2 x 0,5	5.1	17.6	37
0114 027	3 x 0,5	5.4	22.5	44
0114 028	4 x 0,5	5.8	28.9	53
0114 040	5 x 0,5	6.3	33.7	63
0114 020	6 x 0,5	6.8	39.4	74
0114 001	7 x 0,5	6.8	44.2	76
0114 021	8 x 0,5	7.3	50.0	88
0114 022	10 x 0,5	8.5	65.9	108
0114 023	12 x 0,5	8.8	76.6	123
0114 041	14 x 0,5	9.2	87.0	138
0114 042	16 x 0,5	10.1	98.5	165
0114 043	18 x 0,5	10.6	108.7	183
0114 044	19 x 0,5	10.6	113.5	185
0114 045	21 x 0,5	11.1	124.4	204
0114 046	24 x 0,5	12.4	141.7	234
0114 047	25 x 0,5	12.7	147.2	250
0114 048	27 x 0,5	12.7	156.8	255
0114 049	30 x 0,5	13.1	172.3	277
0114 050	34 x 0,5	14.3	194.1	327
0114 051	36 x 0,5	14.3	203.7	332
0114 052	37 x 0,5	14.3	208.5	335
0114 053	40 x 0,5	14.8	224.1	360
0114 054	41 x 0,5	15.4	237.1	388
0114 055	1 x 0,75	3.6	12.0	24
0114 003	2 x 0,75	5.5	22.5	43
0114 004	3 x 0,75	5.7	30.0	52
0114 016	4 x 0,75	6.2	38.5	63
0114 056	5 x 0,75	6.7	46.4	76
0114 057	6 x 0,75	7.3	54.8	91
0114 058	7 x 0,75	7.3	62.0	95
0114 059	8 x 0,75	7.9	74.0	113

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0114 030	10 x 0,75	9.2	91.8	135
0114 005	12 x 0,75	9.9	106.9	163
0114 060	14 x 0,75	10.4	122.6	184
0114 029	16 x 0,75	10.9	138.3	206
0114 006	18 x 0,75	11.5	154.2	229
0114 061	19 x 0,75	11.5	161.4	233
0114 062	21 x 0,75	12.2	177.1	263
0114 063	24 x 0,75	13.5	202.1	295
0114 007	25 x 0,75	13.8	210.1	315
0114 064	27 x 0,75	13.8	224.5	323
0114 065	30 x 0,75	14.4	247.1	358
0114 066	34 x 0,75	15.6	285.7	421
0114 067	1 x 1,0	3.8	14.4	27
0114 008	2 x 1,0	5.8	28.9	50
0114 009	3 x 1,0	6.1	38.5	62
0114 019	4 x 1,0	6.7	48.8	76
0114 010	5 x 1,0	7.2	59.4	93
0114 068	6 x 1,0	7.9	74.0	113
0114 011	7 x 1,0	7.9	83.6	119
0114 069	8 x 1,0	8.5	94.7	137
0114 070	10 x 1,0	10.3	117.7	174
0114 071	12 x 1,0	10.7	137.8	199
0114 072	14 x 1,0	11.2	158.8	224
0114 024	16 x 1,0	11.7	178.8	252
0114 015	18 x 1,0	12.6	199.9	288
0114 073	19 x 1,0	12.6	209.5	293
0114 074	21 x 1,0	13.2	230.1	324
0114 075	24 x 1,0	14.8	262.5	371
0114 025	25 x 1,0	15.2	279.6	402
0114 076	27 x 1,0	15.2	298.8	413
0114 077	30 x 1,0	15.7	329.2	449



**TECHNOFLEKS LIYCY 300/500 V**  
**TECHNOFLEKS LIYCYżo 300/500 V**

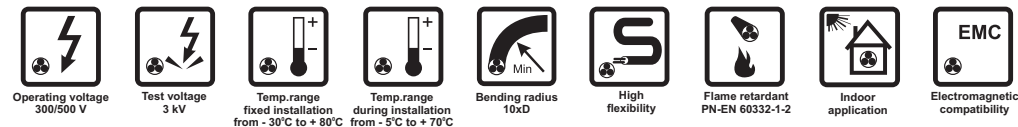
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0114 078	1 x 1,5	4.1	19.8	33
0114 018	2 x 1,5	6.4	38.6	61
0114 012	3 x 1,5	6.7	53.6	78
0114 079	4 x 1,5	7.3	69.2	97
0114 013	5 x 1,5	8.1	88.9	124
0114 080	6 x 1,5	8.7	105.4	147
0114 014	7 x 1,5	8.7	119.8	155
0114 081	8 x 1,5	9.8	135.4	189
0114 082	10 x 1,5	11.4	168.4	226
0114 083	12 x 1,5	12.0	198.2	266
0114 084	14 x 1,5	12.6	228.7	301
0114 085	16 x 1,5	13.2	258.9	340
0114 086	18 x 1,5	13.9	289.5	379
0114 087	19 x 1,5	13.9	303.9	388
0114 088	21 x 1,5	14.8	334.5	436
0114 089	24 x 1,5	16.5	389.3	498
0114 090	25 x 1,5	16.8	404.6	529
0114 091	1 x 2,5	4.5	30.4	44
0114 092	2 x 2,5	7.2	59.4	83
0114 093	3 x 2,5	7.6	84.2	109
0114 017	4 x 2,5	8.4	113.7	141
0114 094	5 x 2,5	9.2	139.8	175
0114 095	6 x 2,5	10.4	165.8	219
0114 096	7 x 2,5	10.4	189.8	233
0114 097	8 x 2,5	11.3	216.4	270
0114 098	10 x 2,5	13.3	268.8	330
0114 099	12 x 2,5	13.8	318.1	381
0114 100	14 x 2,5	14.7	367.9	442
0114 101	16 x 2,5	15.5	424.6	507
0114 102	18 x 2,5	16.4	475.4	567
0114 103	2 x 4,0	8.7	95.8	123

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0114 104	3 x 4,0	9.2	135.0	163
0114 105	4 x 4,0	10.5	175.7	216
0114 106	5 x 4,0	11.5	216.6	268
0114 107	7 x 4,0	12.7	296.0	350
0114 038	3 x 6,0	11.0	196.2	240
0114 108	4 x 6,0	12.3	256.6	310
0114 109	5 x 6,0	13.4	317.0	386
0114 110	7 x 6,0	14.9	435.6	507
0114 111	3 x 10,0	13.8	318.1	392
0114 112	4 x 10,0	15.5	424.6	516
0114 113	5 x 10,0	17.0	525.2	645
0114 114	7 x 10,0	18.8	722.2	850
0114 115	3 x 16,0	16.5	504.5	593
0114 116	4 x 16,0	18.1	663.0	761
0114 117	5 x 16,0	20.1	822.2	967
0114 118	7 x 16,0	22.0	1135.3	1270
0114 119	3 x 25,0	19.2	771.4	846
0114 120	4 x 25,0	21.2	1017.6	1093
0114 121	5 x 25,0	23.7	1287.3	1411
0114 122	3 x 35,0	22.9	1091.9	1191
0114 123	4 x 35,0	25.3	1438.0	1536
0114 124	5 x 35,0	28.1	1812.9	1964
0114 125	3 x 50,0	28.5	1575.0	1737
0114 126	4 x 50,0	31.7	2070.9	2265
0114 127	5 x 50,0	35.2	2600.9	2888

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYCY-P 300/500 V TECHNOFLEKS LiYCY-P-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYCY-P 300/500 V** and **TECHNOFLEKS LiYCY-P-Nr 300/500 V** are multipair flexible, overall shielded cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYCY-P 300/500 V**, black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYCY-P-Nr 300/500 V**,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYCEY-P 300/500 V** and **TECHNOFLEKS LiYCEY-P-Nr 300/500 V** - cables with flexible drain wire stranded of tin-plated annealed copper wires, laid under a shield.

**TECHNOFLEKS LiYCY-P-O 300/500 V** and **TECHNOFLEKS LiYCY-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiYC11Y-P 300/500 V** and **TECHNOFLEKS LiYC11Y-P-Nr 300/500 V** – polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiYCYv-P 300/500 V** and **TECHNOFLEKS LiYCYv-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LIYCY-P 300/500 V**  
**TECHNOFLEKS LIYCY-P-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

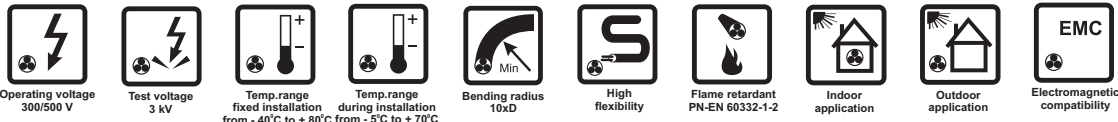
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0131 004	2 x 2 x 0,5	7.4	31.0	66
0131 019	3 x 2 x 0,5	7.9	45.2	80
0131 007	4 x 2 x 0,5	8.7	57.4	98
0131 005	5 x 2 x 0,5	9.9	68.5	125
0131 027	6 x 2 x 0,5	10.7	80.2	143
0131 028	7 x 2 x 0,5	10.7	89.8	156
0131 008	8 x 2 x 0,5	11.4	101.2	173
0131 009	10 x 2 x 0,5	13.1	124.3	216
0131 010	12 x 2 x 0,5	13.6	144.8	244
0131 029	14 x 2 x 0,5	14.7	166.3	284
0131 011	16 x 2 x 0,5	15.7	194.8	323
0131 030	18 x 2 x 0,5	16.4	216.2	354
0131 012	20 x 2 x 0,5	17.2	237.9	386
0131 013	24 x 2 x 0,5	18.8	280.6	458
0131 031	25 x 2 x 0,5	19.1	291.1	473
0131 032	30 x 2 x 0,5	20.6	343.8	549
0131 018	2 x 2 x 0,75	8.1	45.7	87
0131 006	3 x 2 x 0,75	8.6	62.2	99
0131 023	4 x 2 x 0,75	9.8	77.8	130
0131 026	5 x 2 x 0,75	10.7	94.6	153
0131 021	6 x 2 x 0,75	11.6	111.3	177
0131 033	7 x 2 x 0,75	11.6	125.7	194
0131 034	8 x 2 x 0,75	12.6	142.3	223
0131 022	10 x 2 x 0,75	14.4	175.1	276
0131 035	12 x 2 x 0,75	15.2	212.4	322
0131 036	14 x 2 x 0,75	16.2	244.4	365
0131 037	16 x 2 x 0,75	17.1	275.9	407
0131 038	18 x 2 x 0,75	17.9	307.2	447
0131 039	20 x 2 x 0,75	19.0	338.8	499
0131 002	2 x 2 x 1,0	8.7	57.4	101
0131 020	3 x 2 x 1,0	9.2	77.4	117
0131 014	4 x 2 x 1,0	10.5	98.9	155
0131 024	5 x 2 x 1,0	11.5	120.6	184

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0131 025	6 x 2 x 1,0	12.8	142.7	220
0131 017	7 x 2 x 1,0	12.8	161.9	243
0131 015	8 x 2 x 1,0	13.6	183.2	271
0131 040	10 x 2 x 1,0	15.7	233.2	344
0131 041	12 x 2 x 1,0	16.4	273.8	393
0131 042	14 x 2 x 1,0	17.5	315.6	446
0131 016	16 x 2 x 1,0	18.7	357.1	508
0131 043	18 x 2 x 1,0	19.6	398.3	561
0131 044	20 x 2 x 1,0	20.5	439.4	613
0131 045	2 x 2 x 1,5	10.1	79.3	135
0131 046	3 x 2 x 1,5	10.6	108.7	161
0131 001	4 x 2 x 1,5	11.6	140.1	199
0131 047	5 x 2 x 1,5	13.0	172.0	245
0131 048	6 x 2 x 1,5	14.3	203.7	292
0131 049	7 x 2 x 1,5	14.3	232.5	323
0131 050	8 x 2 x 1,5	15.3	270.4	369
0131 051	10 x 2 x 1,5	17.4	334.4	449
0131 052	12 x 2 x 1,5	18.4	394.5	526
0131 053	14 x 2 x 1,5	19.6	455.9	599
0131 054	16 x 2 x 1,5	20.8	517.2	673
0131 055	18 x 2 x 1,5	21.9	578.2	745
0131 056	20 x 2 x 1,5	23.3	661.6	850
0131 057	2 x 2 x 2,5	11.5	120.6	184
0131 058	3 x 2 x 2,5	12.4	170.5	232
0131 059	4 x 2 x 2,5	13.6	221.6	289
0131 060	5 x 2 x 2,5	15.3	280.0	363
0131 061	6 x 2 x 2,5	16.6	331.9	422
0131 062	7 x 2 x 2,5	16.6	379.9	471
0131 063	8 x 2 x 2,5	17.7	431.4	529
0131 064	10 x 2 x 2,5	20.3	534.9	658
0131 065	12 x 2 x 2,5	21.3	633.9	762

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**YSLYCY-JZ 300/500 V, YSLYCY-OZ 300/500 V,  
YSLYCY-JB 300/500 V, YSLYCY-OB 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**YSLYCY-JZ 300/500 V, YSLYCY-OZ 300/500 V, YSLYCY-JB 300/500 V** and **YSLYCY-OB 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor and outdoor installations connecting fixed and movable equipment. UV radiation protection is required for outdoor installations.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code:
  - YSLYCY-OZ 300/500 V** - black and white conductor number printed on it,
  - YSLYCY-OB 300/500 V** - colours in accordance with PN-HD 308 standard,
  - green-yellow protective conductor located in the outer layer in **YSLYCY-JZ 300/500 V** and **YSLYCY-JB 300/500 V** cable,
- insulated conductors laid-up in layers,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**YSLYCY-JZ OR 300/500 V, YSLYCY-OZ OR 300/500 V, YSLYCY-JB OR 300/500 V** and **YSLYCY-OB OR 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YSLYSY-JZ 300/500 V, YSLYSY-OZ 300/500 V, YSLYSY-JB 300/500 V** and **YSLYSY-OB 300/500 V** – cables of enhanced protection against mechanical damage, shielded with zinc-plated steel wire braid.

**YSLYCY-JZ 300/500 V, YSLYCY-OZ 300/500 V,  
YSLYCY-JB 300/500 V, YSLYCY-OB 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 40 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
<b>YSLYCY-JZ 300/500 V</b>				
1767 001	2x0,5	6.5	19.3	54
1767 002	3x0,5	6.8	24.2	63
1767 003	4x0,5	7.2	29.8	72
1767 004	5x0,5	7.7	35.6	85
1767 005	6x0,5	8.5	45.7	105
1767 006	7x0,5	8.5	50.5	107
1767 007	8x0,5	9.2	57.4	123
1767 008	10x0,5	10.3	69.7	146
1767 009	12x0,5	10.6	79.4	161
1767 010	14x0,5	11.0	90.1	177
1767 011	16x0,5	11.5	101.2	197
1767 012	18x0,5	12.2	111.8	221
1767 013	20x0,5	12.9	123.2	247
1767 014	21x0,5	12.9	128.0	247
1767 015	27x0,5	14.3	160.5	300
1767 016	30x0,5	14.7	175.9	323
1767 017	36x0,5	16.0	214.3	388
1767 018	40x0,5	16.7	235.7	423
1767 019	44x0,5	17.8	258.3	461
1767 020	48x0,5	18.3	278.4	497
1767 021	52x0,5	18.7	298.8	527
1767 022	56x0,5	19.2	319.6	560
1767 023	61x0,5	19.7	345.1	596
1767 024	2x0,75	6.9	24.4	62
1767 025	3x0,75	7.1	32.0	72
1767 026	4x0,75	7.6	40.2	85
1767 027	5x0,75	8.1	48.4	100
1767 028	6x0,75	9.2	62.2	129
1767 029	7x0,75	9.2	69.4	133
1767 030	8x0,75	9.7	77.1	145
1767 031	10x0,75	11.0	94.9	175
1767 032	12x0,75	11.3	110.0	195
1767 033	14x0,75	11.8	125.7	217
1767 034	16x0,75	12.7	142.3	253
1767 035	18x0,75	13.3	157.9	278

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1767 036	20x0,75	13.8	173.6	303
1767 037	21x0,75	13.8	180.8	305
1767 038	27x0,75	15.7	235.0	387
1767 039	30x0,75	16.3	258.4	424
1767 040	36x0,75	17.4	305.1	493
1767 041	40x0,75	18.0	335.9	530
1767 042	44x0,75	19.4	368.2	587
1767 043	48x0,75	19.7	397.9	624
1767 044	52x0,75	20.4	429.0	674
1767 045	56x0,75	20.9	459.2	716
1767 046	61x0,75	21.7	497.1	774
1767 047	2x1,0	7.2	29.8	69
1767 048	3x1,0	7.5	40.0	83
1767 049	4x1,0	8.1	50.8	99
1767 050	5x1,0	9.1	65.9	129
1767 051	6x1,0	9.7	77.1	149
1767 052	7x1,0	9.7	86.7	154
1767 053	8x1,0	10.3	98.5	172
1767 054	10x1,0	11.7	120.6	207
1767 055	12x1,0	12.5	141.4	244
1767 056	14x1,0	13.0	161.9	271
1767 057	16x1,0	13.5	182.4	301
1767 058	18x1,0	14.2	203.4	333
1767 059	20x1,0	14.8	224.1	365
1767 060	21x1,0	14.8	233.7	367
1767 061	27x1,0	17.0	303.8	474
1767 062	30x1,0	17.5	334.1	513
1767 063	36x1,0	18.9	395.5	607
1767 064	40x1,0	19.5	435.7	653
1767 065	44x1,0	21.3	479.1	733
1767 066	48x1,0	21.6	518.4	781
1767 067	52x1,0	22.1	558.4	832
1767 068	56x1,0	22.9	620.6	908
1767 069	61x1,0	23.5	671.2	969
1767 070	2x1,5	8.5	45.7	96

**YSLYCY-JZ 300/500 V, YSLYCY-OZ 300/500 V,  
YSLYCY-JB 300/500 V, YSLYCY-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1767 071	3x1,5	8.8	60.9	116
1767 072	4x1,5	9.7	77.1	143
1767 073	5x1,5	10.4	93.7	171
1767 074	6x1,5	11.1	109.5	197
1767 075	7x1,5	11.1	123.9	206
1767 076	8x1,5	12.1	140.4	236
1767 077	10x1,5	14.0	174.1	292
1767 078	12x1,5	14.4	203.9	330
1767 079	14x1,5	15.3	241.0	382
1767 080	16x1,5	16.3	272.8	436
1767 081	18x1,5	17.0	303.8	481
1767 082	20x1,5	17.8	335.1	530
1767 083	21x1,5	17.8	349.5	533
1767 084	27x1,5	20.3	443.0	675
1767 085	30x1,5	20.9	488.0	732
1767 086	36x1,5	22.8	601.1	890
1767 087	40x1,5	23.5	661.6	958
1767 088	44x1,5	25.6	727.2	1071
1767 089	48x1,5	26.0	786.4	1143
1767 090	52x1,5	26.9	873.2	1245
1767 091	56x1,5	27.8	934.4	1338
1767 092	61x1,5	28.7	1011.3	1442
1767 093	2x2,5	10.1	68.5	135
1767 094	3x2,5	10.6	93.8	167
1767 095	4x2,5	11.4	120.4	202
1767 096	5x2,5	12.7	147.1	255
1767 097	6x2,5	13.7	173.3	299
1767 098	7x2,5	13.7	197.3	313
1767 099	8x2,5	14.6	223.6	350
1767 100	10x2,5	17.4	285.9	451
1767 101	12x2,5	17.9	335.4	512
1767 102	14x2,5	18.9	385.9	584
1767 103	16x2,5	20.0	437.3	664
1767 104	18x2,5	21.0	488.4	737
1767 105	20x2,5	22.1	539.2	822
1767 106	21x2,5	22.1	563.2	827
1767 107	27x2,5	25.4	740.7	1072
1767 108	30x2,5	26.3	816.5	1166
1767 109	36x2,5	28.7	996.9	1422
1767 110	40x2,5	29.7	1098.2	1534
1767 111	44x2,5	32.3	1206.9	1708
1767 112	48x2,5	32.8	1305.5	1826
1767 113	52x2,5	33.8	1405.7	1963
1767 114	56x2,5	34.8	1507.0	2096
1767 115	61x2,5	35.9	1632.8	2258
1767 116	2x4	10.8	99.1	165
1767 117	3x4	11.3	138.8	208
1767 118	4x4	12.6	180.1	267
1767 119	5x4	13.7	221.3	325
1767 120	7x4	14.7	300.7	406
1767 121	2x6	12.1	140.4	216
1767 122	3x6	13.0	200.3	285
1767 123	4x6	14.0	260.5	352

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1767 124	5x6	15.5	328.0	445
1767 125	7x6	16.9	447.5	569
1767 126	2x10	15.7	232.6	363
1767 127	3x10	16.8	331.9	484
1767 128	4x10	18.4	432.3	613
1767 129	5x10	20.3	534.2	767
1767 130	7x10	22.2	731.5	987
1767 131	2x16	18.3	355.2	517
1767 132	3x16	19.3	511.9	690
1767 133	4x16	21.5	671.7	892
1767 134	5x16	23.6	854.0	1128
1767 135	7x16	26.0	1170.4	1473
1767 136	2x25	21.8	538.2	740
1767 137	3x25	23.3	804.8	1022
1767 138	4x25	25.9	1054.8	1320
1767 139	5x25	28.9	1333.9	1695
1767 140	7x25	31.8	1828.2	2211
1767 141	2x35	24.7	761.8	989
1767 142	3x35	26.2	1104.1	1343
1767 143	4x35	29.2	1479.5	1764
1767 144	5x35	32.4	1831.4	2225
1767 145	7x35	35.6	2519.2	2915
1767 146	2x50	30.1	1100.3	1417
1767 147	3x50	32.4	1591.4	1958
1767 148	4x50	35.8	2088.3	2525
1767 149	5x50	39.8	2587.3	3208
1767 150	7x50	43.8	3567.4	4197
YSLYCY-OZ 300/500 V				
1768 001	2x0,5	6.5	19.3	54
1768 002	3x0,5	6.8	24.2	63
1768 003	4x0,5	7.2	29.8	72
1768 004	5x0,5	7.7	35.6	85
1768 005	7x0,5	8.5	50.5	107
1768 006	2x0,75	6.9	24.4	62
1768 007	3x0,75	7.1	32.0	72
1768 008	4x0,75	7.6	40.2	85
1768 009	5x0,75	8.1	48.4	100
1768 010	7x0,75	9.2	69.4	133
1768 011	2x1,0	7.2	29.8	69
1768 012	3x1,0	7.5	40.0	83
1768 013	4x1,0	8.1	50.8	99
1768 014	5x1,0	9.1	65.9	129
1768 015	7x1,0	9.7	86.7	154
1768 016	2x1,5	8.5	45.7	96
1768 017	3x1,5	8.8	60.9	116
1768 018	4x1,5	9.7	77.1	143
1768 019	5x1,5	10.4	93.7	171
1768 020	7x1,5	11.1	123.9	206

**YSLYCY-JZ 300/500 V, YSLYCY-OZ 300/500 V,  
YSLYCY-JB 300/500 V, YSLYCY-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1768 021	2x2,5	10.1	68.5	135
1768 022	3x2,5	10.6	93.8	167
1768 023	4x2,5	11.4	120.4	202
1768 024	5x2,5	12.7	147.1	255
1768 025	7x2,5	13.7	197.3	313
1768 026	2x4	10.8	99.1	165
1768 027	3x4	11.3	138.8	208
1768 028	4x4	12.6	180.1	267
1768 029	5x4	13.7	221.3	325
1768 030	7x4	14.7	300.7	406
1768 031	2x6	12.1	140.4	216
1768 032	3x6	13.0	200.3	285
1768 033	4x6	14.0	260.5	352
1768 034	5x6	15.5	328.0	445
1768 035	7x6	16.9	447.5	569
1768 036	2x10	15.7	232.6	363
1768 037	3x10	16.8	331.9	484
1768 038	4x10	18.4	432.3	613
1768 039	5x10	20.3	534.2	767
1768 040	7x10	22.2	731.5	987
1768 041	2x16	18.3	355.2	517
1768 042	3x16	19.3	511.9	690
1768 043	4x16	21.5	671.7	892
1768 044	5x16	23.6	854.0	1128
1768 045	7x16	26.0	1170.4	1473
1768 046	2x25	21.8	538.2	740
1768 047	3x25	23.3	804.8	1022
1768 048	4x25	25.9	1054.8	1320
1768 049	5x25	28.9	1333.9	1695
1768 050	7x25	31.8	1828.2	2211
1768 051	2x35	24.7	761.8	989
1768 052	3x35	26.2	1104.1	1343
1768 053	4x35	29.2	1479.5	1764
1768 054	5x35	32.4	1831.4	2225
1768 055	7x35	35.6	2519.2	2915
1768 056	2x50	30.1	1100.3	1417
1768 057	3x50	32.4	1591.4	1958
1768 058	4x50	35.8	2088.3	2525
1768 059	5x50	39.8	2587.3	3208
1768 060	7x50	43.8	3567.4	4197
YSLYCY-JB 300/500 V				
1769 001	3x0,5	6.8	24.2	63
1769 002	5x0,5	7.7	35.6	85

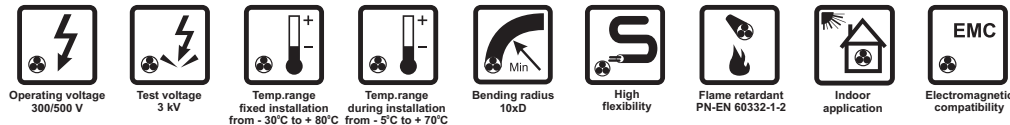
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1769 003	3x0,75	7.1	32.0	72
1769 004	5x0,75	8.1	48.4	100
1769 005	3x1,0	7.5	40.0	83
1769 006	5x1,0	9.1	65.9	129
1769 007	3x1,5	8.8	60.9	116
1769 008	5x1,5	10.4	93.7	171
1769 009	3x2,5	10.6	93.8	167
1769 010	5x2,5	12.7	147.1	255
1769 011	3x4	11.3	138.8	208
1769 012	5x4	13.7	221.3	325
1769 013	3x6	13.0	200.3	285
1769 014	5x6	15.5	328.0	445
1769 015	3x10	16.8	331.9	484
1769 016	5x10	20.3	534.2	767
1769 017	3x16	19.3	511.9	690
1769 018	5x16	23.6	854.0	1128
1769 019	3x25	23.3	804.8	1022
1769 020	5x25	28.9	1333.9	1695
1769 021	3x35	26.2	1104.1	1343
1769 022	5x35	32.4	1831.4	2225
1769 023	3x50	32.4	1591.4	1958
1769 024	5x50	39.8	2587.3	3208
YSLYCY-OB 300/500 V				
1770 001	2x0,5	6.5	19.3	54
1770 002	4x0,5	7.2	29.8	72
1770 003	2x0,75	6.9	24.4	62
1770 004	4x0,75	7.6	40.2	85
1770 005	2x1,0	7.2	29.8	69
1770 006	4x1,0	8.1	50.8	99
1770 007	2x1,5	8.5	45.7	96
1770 008	4x1,5	9.7	77.1	143
1770 009	2x2,5	10.1	68.5	135
1770 010	4x2,5	11.4	120.4	202
1770 011	2x4	10.8	99.1	165
1770 012	4x4	12.6	180.1	267
1770 013	2x6	12.1	140.4	216
1770 014	4x6	14.0	260.5	352
1770 015	2x10	15.7	232.6	363
1770 016	4x10	18.4	432.3	613
1770 017	2x16	18.3	355.2	517
1770 018	4x16	21.5	671.7	892
1770 019	2x25	21.8	538.2	740
1770 020	4x25	25.9	1054.8	1320
1770 021	2x35	24.7	761.8	989
1770 022	4x35	29.2	1479.5	1764
1770 023	2x50	30.1	1100.3	1417
1770 024	4x50	35.8	2088.3	2525

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYYCY-Nr 300/500 V TECHNOFLEKS LiYYCYżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYYCY-Nr 300/500 V** and **TECHNOFLEKS LiYYCYżo-Nr 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiYYCYżo-Nr 300/500 V** cable,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYCYżo-Nr 300/500 V** cable,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYYCY-Nr 300/500 V** and **TECHNOFLEKS LiYYCYżo-Nr 300/500 V** – cables of enhanced protection against mechanical damage, shielded with zinc-plated steel wire braid.



## TECHNOFLEKS LIYYCY-Nr 300/500 V TECHNOFLEKS LIYYCYżo-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0640 009	2 x 0,5	6.9	19.6	60
0640 010	3 x 0,5	7.2	25.0	69
0640 011	4 x 0,5	7.6	30.6	79
0640 012	5 x 0,5	8.1	36.4	92
0640 013	6 x 0,5	8.7	46.2	109
0640 014	7 x 0,5	8.7	51.0	112
0640 015	8 x 0,5	9.2	57.4	126
0640 016	10 x 0,5	10.7	69.7	155
0640 017	12 x 0,5	11.0	79.9	171
0640 018	14 x 0,5	11.4	90.6	188
0640 019	16 x 0,5	11.9	101.4	207
0640 020	18 x 0,5	12.4	112.3	227
0640 021	19 x 0,5	12.4	117.1	230
0640 022	21 x 0,5	12.9	128.0	250
0640 023	24 x 0,5	14.0	145.3	278
0640 024	25 x 0,5	14.5	150.9	301
0640 025	27 x 0,5	14.5	160.5	306
0640 026	30 x 0,5	14.9	175.9	330
0640 027	34 x 0,5	16.0	204.7	384
0640 028	36 x 0,5	16.0	214.3	389
0640 029	37 x 0,5	16.0	219.1	392
0640 030	40 x 0,5	16.5	235.4	419
0640 031	41 x 0,5	17.0	241.4	441
0640 032	44 x 0,5	17.6	257.6	454
0640 033	48 x 0,5	17.9	277.8	482
0640 008	2 x 0,75	7.3	25.2	68
0640 034	3 x 0,75	7.5	32.8	79
0640 035	4 x 0,75	8.0	41.0	92
0640 036	5 x 0,75	8.6	53.1	112
0640 037	6 x 0,75	9.2	62.2	129
0640 038	7 x 0,75	9.2	69.4	133
0640 039	8 x 0,75	9.7	77.6	149

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0640 040	10 x 0,75	11.4	95.4	186
0640 041	12 x 0,75	11.7	110.8	206
0640 042	14 x 0,75	12.2	126.2	228
0640 043	16 x 0,75	12.7	142.3	253
0640 044	18 x 0,75	13.3	157.9	279
0640 045	19 x 0,75	13.3	165.1	283
0640 046	21 x 0,75	13.8	180.8	308
0640 047	24 x 0,75	15.4	212.4	358
0640 048	25 x 0,75	15.7	220.6	379
0640 049	27 x 0,75	15.7	235.0	387
0640 050	30 x 0,75	16.1	257.8	418
0640 051	34 x 0,75	17.2	290.0	478
0640 052	36 x 0,75	17.2	304.4	486
0640 053	37 x 0,75	17.2	311.6	490
0640 054	2 x 1,0	7.6	30.6	76
0640 055	3 x 1,0	7.9	40.8	90
0640 056	4 x 1,0	8.6	55.5	111
0640 057	5 x 1,0	9.1	67.0	130
0640 001	6 x 1,0	9.7	77.6	149
0640 058	7 x 1,0	9.7	87.2	155
0640 059	8 x 1,0	10.7	98.5	185
0640 060	10 x 1,0	12.1	121.2	218
0640 006	12 x 1,0	12.5	141.4	244
0640 061	14 x 1,0	13.0	161.9	272
0640 062	16 x 1,0	13.5	182.4	302
0640 063	18 x 1,0	14.4	203.4	340
0640 064	19 x 1,0	14.4	213.0	346
0640 065	21 x 1,0	15.0	233.7	378
0640 007	24 x 1,0	16.5	273.8	431
0640 066	25 x 1,0	16.8	283.9	456
0640 067	27 x 1,0	16.8	303.1	467
0640 068	30 x 1,0	17.3	333.5	506

**TECHNOFLEKS LiYYCY-Nr 300/500 V**  
**TECHNOFLEKS LiYYCYżo-Nr 300/500 V**

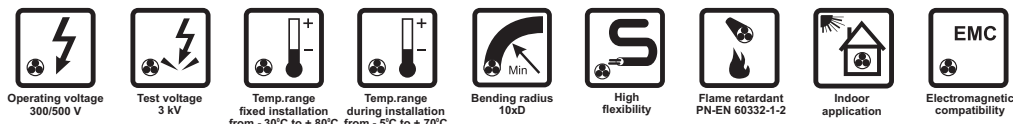
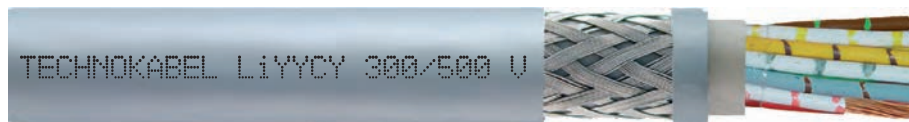
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0640 069	34 x 1,0	18.9	375.6	597
0640 070	36 x 1,0	18.9	394.8	608
0640 071	37 x 1,0	18.9	404.4	613
0640 003	2 x 1,5	8.3	45.2	94
0640 072	3 x 1,5	8.6	60.3	112
0640 002	4 x 1,5	9.2	76.6	134
0640 073	5 x 1,5	10.3	92.5	168
0640 074	6 x 1,5	10.9	108.5	193
0640 075	7 x 1,5	10.9	122.9	202
0640 076	8 x 1,5	11.6	139.6	230
0640 077	10 x 1,5	13.2	172.0	273
0640 078	12 x 1,5	13.6	201.8	308
0640 079	14 x 1,5	14.4	232.2	351
0640 004	16 x 1,5	15.0	262.5	392
0640 080	18 x 1,5	15.8	300.1	441
0640 081	19 x 1,5	15.8	314.5	450
0640 082	21 x 1,5	16.5	345.8	494
0640 005	24 x 1,5	18.1	393.6	553
0640 083	25 x 1,5	18.8	408.9	602
0640 084	27 x 1,5	18.8	437.7	619
0640 085	2 x 2,5	9.1	67.0	119
0640 086	3 x 2,5	9.5	91.5	147
0640 087	4 x 2,5	10.6	117.7	187
0640 088	5 x 2,5	11.4	143.4	224
0640 089	6 x 2,5	12.2	169.4	261
0640 090	7 x 2,5	12.2	193.4	275
0640 091	8 x 2,5	13.1	219.7	316
0640 092	10 x 2,5	15.1	272.4	382
0640 093	12 x 2,5	15.7	328.6	443
0640 094	14 x 2,5	16.4	378.8	499
0640 095	16 x 2,5	17.1	428.9	559
0640 096	18 x 2,5	18.0	479.9	623
0640 097	19 x 2,5	18.0	503.9	637

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0640 098	2 x 4,0	10.9	98.9	169
0640 099	3 x 4,0	11.4	138.6	212
0640 100	4 x 4,0	12.3	179.3	259
0640 101	5 x 4,0	13.3	220.3	315
0640 102	7 x 4,0	14.5	299.7	400
0640 103	3 x 6,0	12.8	199.9	284
0640 104	4 x 6,0	13.9	260.2	353
0640 105	5 x 6,0	15.3	327.4	445
0640 106	7 x 6,0	16.6	446.6	563
0640 107	3 x 10,0	15.7	328.6	452
0640 108	4 x 10,0	17.1	428.9	567
0640 109	5 x 10,0	19.0	529.5	717
0640 110	7 x 10,0	20.6	726.6	918
0640 111	3 x 16,0	18.1	508.8	646
0640 112	4 x 16,0	20.1	667.4	837
0640 113	5 x 16,0	21.9	826.6	1040
0640 114	7 x 16,0	8.7	51.0	112
0640 115	3 x 25,0	21.0	775.8	915
0640 116	4 x 25,0	23.6	1044.3	1212
0640 117	5 x 25,0	25.7	1293.1	1506
0640 118	3 x 35,0	24.9	1097.8	1282
0640 119	4 x 35,0	27.5	1470.5	1662
0640 120	5 x 35,0	30.1	1820.3	2076
0640 121	3 x 50,0	30.5	1582.4	1849
0640 122	4 x 50,0	34.3	2080.4	2433
0640 123	5 x 50,0	37.8	2600.9	3063

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYYCY 300/500 V TECHNOFLEKS LiYYCYżo 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYYCY 300/500 V** and **TECHNOFLEKS LiYYCYżo 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYCYżo 300/500 V** cable,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYYSY 300/500 V** and **TECHNOFLEKS LiYYSYżo 300/500 V** - cables of enhanced protection against mechanical damage, shielded with zinc-plated steel wire braid.

## TECHNOFLEKS LIYYCY 300/500 V TECHNOFLEKS LIYYCYżo 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit in work conditions	+ 70°C	Minimum bending radius	10 x cable diameter
at short-circuit	+ 150°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0565 003	2 x 0,5	6.9	19.6	60
0565 011	3 x 0,5	7.2	25.0	69
0565 004	4 x 0,5	7.6	30.6	79
0565 005	5 x 0,5	8.1	36.4	92
0565 012	6 x 0,5	8.7	46.2	109
0565 013	7 x 0,5	8.7	51.0	112
0565 014	8 x 0,5	9.2	57.4	126
0565 015	10 x 0,5	10.7	69.7	155
0565 016	12 x 0,5	11.0	79.9	171
0565 017	14 x 0,5	11.4	90.6	188
0565 018	16 x 0,5	11.9	101.4	207
0565 019	18 x 0,5	12.4	112.3	227
0565 020	19 x 0,5	12.4	117.1	230
0565 021	21 x 0,5	12.9	128.0	250
0565 022	24 x 0,5	14.0	145.3	278
0565 023	25 x 0,5	14.5	150.9	301
0565 024	27 x 0,5	14.5	160.5	306
0565 025	30 x 0,5	14.9	175.9	330
0565 026	34 x 0,5	16.0	204.7	384
0565 027	36 x 0,5	16.0	214.3	389
0565 028	37 x 0,5	16.0	219.1	392
0565 029	40 x 0,5	16.5	235.4	419
0565 030	41 x 0,5	17.0	241.4	441
0565 031	44 x 0,5	17.6	257.6	454
0565 032	48 x 0,5	17.9	277.8	482
0565 006	2 x 0,75	7.3	25.2	68
0565 033	3 x 0,75	7.5	32.8	79
0565 034	4 x 0,75	8.0	41.0	92
0565 035	5 x 0,75	8.6	53.1	112
0565 036	6 x 0,75	9.2	62.2	129
0565 037	7 x 0,75	9.2	69.4	133
0565 038	8 x 0,75	9.7	77.6	149

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0565 039	10 x 0,75	11.4	95.4	186
0565 040	12 x 0,75	11.7	110.8	206
0565 041	14 x 0,75	12.2	126.2	228
0565 042	16 x 0,75	12.7	142.3	253
0565 043	18 x 0,75	13.3	157.9	279
0565 044	19 x 0,75	13.3	165.1	283
0565 045	21 x 0,75	13.8	180.8	308
0565 046	24 x 0,75	15.4	212.4	358
0565 047	25 x 0,75	15.7	220.6	379
0565 048	27 x 0,75	15.7	235.0	387
0565 049	30 x 0,75	16.1	257.8	418
0565 050	34 x 0,75	17.2	290.0	478
0565 051	36 x 0,75	17.2	304.4	486
0565 052	37 x 0,75	17.2	311.6	490
0565 053	2 x 1,0	7.6	30.6	76
0565 054	3 x 1,0	7.9	40.8	90
0565 055	4 x 1,0	8.6	55.5	111
0565 056	5 x 1,0	9.1	67.0	130
0565 057	6 x 1,0	9.7	77.6	149
0565 058	7 x 1,0	9.7	87.2	155
0565 059	8 x 1,0	10.7	98.5	185
0565 060	10 x 1,0	12.1	121.2	218
0565 061	12 x 1,0	12.5	141.4	244
0565 062	14 x 1,0	13.0	161.9	272
0565 001	16 x 1,0	13.5	182.4	302
0565 063	18 x 1,0	14.4	203.4	340
0565 064	19 x 1,0	14.4	213.0	346
0565 065	21 x 1,0	15.0	233.7	378
0565 066	24 x 1,0	16.5	273.8	431
0565 002	25 x 1,0	16.8	283.9	456
0565 067	27 x 1,0	16.8	303.1	467
0565 068	30 x 1,0	17.3	333.5	506

**TECHNOFLEKS LiYYCY 300/500 V**  
**TECHNOFLEKS LiYYCYżo 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0565 069	34 x 1,0	18.9	375.6	597
0565 070	36 x 1,0	18.9	394.8	608
0565 071	37 x 1,0	18.9	404.4	613
0565 007	2 x 1,5	8.3	45.2	94
0565 008	3 x 1,5	8.6	60.3	112
0565 009	4 x 1,5	9.2	76.6	134
0565 010	5 x 1,5	10.3	92.5	168
0565 072	6 x 1,5	10.9	108.5	193
0565 073	7 x 1,5	10.9	122.9	202
0565 074	8 x 1,5	11.6	139.6	230
0565 075	10 x 1,5	13.2	172.0	273
0565 076	12 x 1,5	13.6	201.8	308
0565 077	14 x 1,5	14.4	232.2	351
0565 078	16 x 1,5	15.0	262.5	392
0565 079	18 x 1,5	15.8	300.1	441
0565 080	19 x 1,5	15.8	314.5	450
0565 081	21 x 1,5	16.5	345.8	494
0565 082	24 x 1,5	18.1	393.6	553
0565 083	25 x 1,5	18.8	408.9	602
0565 084	27 x 1,5	18.8	437.7	619
0565 085	2 x 2,5	9.1	67.0	119
0565 086	3 x 2,5	9.5	91.5	147
0565 087	4 x 2,5	10.6	117.7	187
0565 088	5 x 2,5	11.4	143.4	224
0565 089	6 x 2,5	12.2	169.4	261
0565 090	7 x 2,5	12.2	193.4	275
0565 091	8 x 2,5	13.1	219.7	316
0565 092	10 x 2,5	15.1	272.4	382
0565 093	12 x 2,5	15.7	328.6	443
0565 094	14 x 2,5	16.4	378.8	499
0565 095	16 x 2,5	17.1	428.9	559
0565 096	18 x 2,5	18.0	479.9	623
0565 097	19 x 2,5	18.0	503.9	637

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0565 098	2 x 4,0	10.9	98.9	169
0565 099	3 x 4,0	11.4	138.6	212
0565 100	4 x 4,0	12.3	179.3	259
0565 101	5 x 4,0	13.3	220.3	315
0565 102	7 x 4,0	14.5	299.7	400
0565 103	3 x 6,0	12.8	199.9	284
0565 104	4 x 6,0	13.9	260.2	353
0565 105	5 x 6,0	15.3	327.4	445
0565 106	7 x 6,0	16.6	446.6	563
0565 107	3 x 10,0	15.7	328.6	452
0565 108	4 x 10,0	17.1	428.9	567
0565 109	5 x 10,0	19.0	529.5	717
0565 110	7 x 10,0	20.6	726.6	918
0565 111	3 x 16,0	18.1	508.8	646
0565 112	4 x 16,0	20.1	667.4	837
0565 113	5 x 16,0	21.9	826.6	1040
0565 114	7 x 16,0	8.7	51.0	112
0565 115	3 x 25,0	21.0	775.8	915
0565 116	4 x 25,0	23.6	1044.3	1212
0565 117	5 x 25,0	25.7	1293.1	1506
0565 118	3 x 35,0	24.9	1097.8	1282
0565 119	4 x 35,0	27.5	1470.5	1662
0565 120	5 x 35,0	30.1	1820.3	2076
0565 121	3 x 50,0	30.5	1582.4	1849
0565 122	4 x 50,0	34.3	2080.4	2433
0565 123	5 x 50,0	37.8	2600.9	3063

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**YSLY-JZ 0,6/1 kV, YSLY-OZ 0,6/1 kV  
YSLY-JB 0,6/1 kV, YSLY-OB 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**YSLY-JZ 0,6/1 kV, YSLY-OZ 0,6/1 kV, YSLY-JB 0,6/1 kV and YSLY-OB 0,6/1 kV** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Sheathing black PVC is resistant to UV radiation.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code:
  - YSLY-OZ 0,6/1 kV** - black and white conductor number printed on it,
  - YSLY-OB 0,6/1 kV** - colours in accordance with PN-HD 308 standard, green-yellow protective conductor located in the outer layer in **YSLY-JZ 0,6/1 kV** and **YSLY-JB 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**YSLY-JZ OR 0,6/1 kV, YSLY-OZ OR 0,6/1 kV, YSLY-JB OR 0,6/1 kV and YSLY-OB OR 0,6/1 kV** – cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**HSLH-JZ 0,6/1 kV, HSLH-OZ 0,6/1 kV, HSLH-JB 0,6/1 kV and HSLH-OB 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**YSLY-JZ 0,6/1 KV, YSLY-OZ 0,6/1 KV**  
**YSLY-JB 0,6/1 KV, YSLY-OB 0,6/1 KV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 40 to + 80°C
Voltage test	4 kV rms	Operating temperature range for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
<b>YSLY-JZ 0,6/1 kV</b>				
1775 001	2x0,5	7.6	9.6	71
1775 002	3x0,5	7.9	14.4	80
1775 003	4x0,5	8.5	19.2	92
1775 004	5x0,5	9.1	24.0	109
1775 005	6x0,5	9.8	28.8	126
1775 006	7x0,5	9.8	33.6	128
1775 007	8x0,5	10.5	38.4	146
1775 008	10x0,5	12.0	48.0	176
1775 009	12x0,5	12.4	57.6	195
1775 010	14x0,5	12.9	67.2	216
1775 011	16x0,5	13.6	76.8	242
1775 012	18x0,5	14.3	86.4	268
1775 013	20x0,5	14.9	96.0	294
1775 014	21x0,5	14.9	100.8	295
1775 015	27x0,5	16.8	129.6	361
1775 016	30x0,5	17.4	144.0	392
1775 017	36x0,5	18.7	172.8	460
1775 018	40x0,5	19.4	192.0	498
1775 019	44x0,5	20.9	211.2	544
1775 020	48x0,5	21.3	230.4	581
1775 021	52x0,5	22.1	249.6	630
1775 022	56x0,5	22.7	268.8	672
1775 023	61x0,5	23.4	292.8	718
1775 024	2x0,75	7.9	14.4	79
1775 025	3x0,75	8.3	21.6	91
1775 026	4x0,75	8.9	28.8	106
1775 027	5x0,75	9.6	36.0	126
1775 028	6x0,75	10.3	43.2	147
1775 029	7x0,75	10.3	50.4	150
1775 030	8x0,75	11.1	57.6	172
1775 031	10x0,75	12.7	72.0	208
1775 032	12x0,75	13.1	86.4	231
1775 033	14x0,75	13.7	100.8	257
1775 034	16x0,75	14.4	115.2	288
1775 035	18x0,75	15.2	129.6	321
1775 036	20x0,75	15.9	144.0	354

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1775 037	21x0,75	15.9	151.2	357
1775 038	27x0,75	17.9	194.4	438
1775 039	30x0,75	18.6	216.0	476
1775 040	36x0,75	20.0	259.2	561
1775 041	40x0,75	20.7	288.0	608
1775 042	44x0,75	22.6	316.8	676
1775 043	48x0,75	23.0	345.6	722
1775 044	52x0,75	23.6	374.4	771
1775 045	56x0,75	24.3	403.2	825
1775 046	61x0,75	25.2	439.2	893
1775 024	2x0,75	7.9	14.4	79
1775 025	3x0,75	8.3	21.6	91
1775 026	4x0,75	8.9	28.8	106
1775 027	5x0,75	9.6	36.0	126
1775 028	6x0,75	10.3	43.2	147
1775 029	7x0,75	10.3	50.4	150
1775 030	8x0,75	11.1	57.6	172
1775 031	10x0,75	12.7	72.0	208
1775 032	12x0,75	13.1	86.4	231
1775 033	14x0,75	13.7	100.8	257
1775 034	16x0,75	14.4	115.2	288
1775 035	18x0,75	15.2	129.6	321
1775 036	20x0,75	15.9	144.0	354
1775 037	21x0,75	15.9	151.2	357
1775 038	27x0,75	17.9	194.4	438
1775 039	30x0,75	18.6	216.0	476
1775 040	36x0,75	20.0	259.2	561
1775 041	40x0,75	20.7	288.0	608
1775 042	44x0,75	22.6	316.8	676
1775 043	48x0,75	23.0	345.6	722
1775 044	52x0,75	23.6	374.4	771
1775 045	56x0,75	24.3	403.2	825
1775 046	61x0,75	25.2	439.2	893
1775 070	2x1,5	8.8	28.8	106
1775 071	3x1,5	9.3	43.2	125
1775 072	4x1,5	10.0	57.6	148

**YSLY-JZ 0,6/1 KV, YSLY-OZ 0,6/1 KV  
YSLY-JB 0,6/1 KV, YSLY-OB 0,6/1 KV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
1775 073	5x1,5	10.8	72.0	178
1775 074	6x1,5	11.7	86.4	209
1775 075	7x1,5	11.7	100.8	217
1775 076	8x1,5	12.6	115.2	249
1775 077	10x1,5	14.5	144.0	302
1775 078	12x1,5	15.0	172.8	341
1775 079	14x1,5	15.7	201.6	382
1775 080	16x1,5	16.5	230.4	431
1775 081	18x1,5	17.4	259.2	481
1775 082	20x1,5	18.3	288.0	533
1775 083	21x1,5	18.3	302.4	539
1775 084	27x1,5	20.7	388.8	668
1775 085	30x1,5	21.4	432.0	729
1775 086	36x1,5	23.3	518.4	874
1775 087	40x1,5	24.2	576.0	952
1775 088	44x1,5	26.4	633.6	1056
1775 089	48x1,5	26.8	691.2	1131
1775 090	52x1,5	27.6	748.8	1212
1775 091	56x1,5	28.6	806.4	1311
1775 092	61x1,5	29.4	878.4	1406
1775 093	2x2,5	10.1	48.0	145
1775 094	3x2,5	10.6	72.0	171
1775 095	4x2,5	11.5	96.0	206
1775 096	5x2,5	12.5	120.0	251
1775 097	6x2,5	13.6	144.0	297
1775 098	7x2,5	13.6	168.0	311
1775 099	8x2,5	14.6	192.0	355
1775 100	10x2,5	17.1	240.0	438
1775 101	12x2,5	17.6	288.0	495
1775 102	14x2,5	18.5	336.0	560
1775 103	16x2,5	19.5	384.0	633
1775 104	18x2,5	20.6	432.0	708
1775 105	20x2,5	21.6	480.0	785
1775 106	21x2,5	21.6	504.0	796
1775 107	27x2,5	25.0	648.0	1016
1775 108	30x2,5	25.9	720.0	1110
1775 109	36x2,5	28.1	864.0	1329
1775 110	40x2,5	29.2	960.0	1450
1775 111	44x2,5	31.8	1056.0	1604
1775 112	48x2,5	32.4	1152.0	1723
1775 113	52x2,5	33.3	1248.0	1847
1775 114	56x2,5	34.5	1344.0	1996
1775 115	61x2,5	35.5	1464.0	2144
1775 116	2x4	11.1	76.8	186
1775 117	3x4	11.7	115.2	225
1775 118	4x4	12.7	153.6	273
1775 119	5x4	13.9	192.0	335
1775 120	7x4	15.0	268.8	418
1775 121	2x6	12.2	115.2	239
1775 122	3x6	12.9	172.8	295
1775 123	4x6	14.1	230.4	363
1775 124	5x6	15.4	288.0	447
1775 125	7x6	16.8	403.2	567

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
1775 126	2x10	15.0	192.0	381
1775 127	3x10	15.9	288.0	477
1775 128	4x10	17.5	384.0	593
1775 129	5x10	19.2	480.0	735
1775 130	7x10	21.0	672.0	941
1775 131	2x16	17.2	307.2	541
1775 132	3x16	18.3	460.8	689
1775 133	4x16	20.1	614.4	862
1775 134	5x16	22.3	768.0	1082
1775 135	7x16	24.4	1075.2	1397
1775 136	2x25	20.3	480.0	779
1775 137	3x25	21.9	720.0	1012
1775 138	4x25	24.1	960.0	1270
1775 139	5x25	26.8	1200.0	1597
1775 140	7x25	29.6	1680.0	2083
1775 141	2x35	22.8	672.0	1022
1775 142	3x35	24.3	1008.0	1321
1775 143	4x35	27.1	1344.0	1683
1775 144	5x35	30.1	1680.0	2114
1775 145	7x35	33.2	2352.0	2766
1775 146	2x50	29.2	960.0	1555
1775 147	3x50	31.4	1440.0	2003
1775 148	4x50	34.9	1920.0	2531
1775 149	5x50	38.7	2400.0	3179
1775 150	7x50	42.7	3360.0	4132
YSLY-OZ 0,6/1 kv				
1776 001	2x0,5	7.6	9.6	71
1776 002	3x0,5	7.9	14.4	80
1776 003	4x0,5	8.5	19.2	92
1776 004	5x0,5	9.1	24.0	109
1776 005	7x0,5	9.8	33.6	128
1776 006	2x0,75	7.9	14.4	79
1776 007	3x0,75	8.3	21.6	91
1776 008	4x0,75	8.9	28.8	106
1776 009	5x0,75	9.6	36.0	126
1776 010	7x0,75	10.3	50.4	150
1776 011	2x1,0	8.3	19.2	90
1776 012	3x1,0	8.7	28.8	104
1776 013	4x1,0	9.4	38.4	122
1776 014	5x1,0	10.1	48.0	146
1776 015	7x1,0	10.9	67.2	175
1776 016	2x1,5	8.8	28.8	106
1776 017	3x1,5	9.3	43.2	125
1776 018	4x1,5	10.0	57.6	148
1776 019	5x1,5	10.8	72.0	178
1776 020	7x1,5	11.7	100.8	217
1776 021	2x2,5	10.1	48.0	145



**YSLY-JZ 0,6/1 KV, YSLY-OZ 0,6/1 KV  
YSLY-JB 0,6/1 KV, YSLY-OB 0,6/1 KV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1776 022	3x2,5	10.6	72.0	171
1776 023	4x2,5	11.5	96.0	206
1776 024	5x2,5	12.5	120.0	251
1776 025	7x2,5	13.6	168.0	311
1776 026	2x4	11.1	76.8	186
1776 027	3x4	11.7	115.2	225
1776 028	4x4	12.7	153.6	273
1776 029	5x4	13.9	192.0	335
1776 030	7x4	15.0	268.8	418
1776 031	2x6	12.2	115.2	239
1776 032	3x6	12.9	172.8	295
1776 033	4x6	14.1	230.4	363
1776 034	5x6	15.4	288.0	447
1776 035	7x6	16.8	403.2	567
1776 036	2x10	15.0	192.0	381
1776 037	3x10	15.9	288.0	477
1776 038	4x10	17.5	384.0	593
1776 039	5x10	19.2	480.0	735
1776 040	7x10	21.0	672.0	941
1776 041	2x16	17.2	307.2	541
1776 042	3x16	18.3	460.8	689
1776 043	4x16	20.1	614.4	862
1776 044	5x16	22.3	768.0	1082
1776 045	7x16	24.4	1075.2	1397
1776 046	2x25	20.3	480.0	779
1776 047	3x25	21.9	720.0	1012
1776 048	4x25	24.1	960.0	1270
1776 049	5x25	26.8	1200.0	1597
1776 050	7x25	29.6	1680.0	2083
1776 051	2x35	22.8	672.0	1022
1776 052	3x35	24.3	1008.0	1321
1776 053	4x35	27.1	1344.0	1683
1776 054	5x35	30.1	1680.0	2114
1776 055	7x35	33.2	2352.0	2766
1776 056	2x50	29.2	960.0	1555
1776 057	3x50	31.4	1440.0	2003
1776 058	4x50	34.9	1920.0	2531
1776 059	5x50	38.7	2400.0	3179
1776 060	7x50	42.7	3360.0	4132
YSLY-JB 0,6/1 kV				
1777 001	3x0,5	7.9	14.4	80
1777 002	5x0,5	9.1	24.0	109
1777 003	3x0,75	8.3	21.6	91

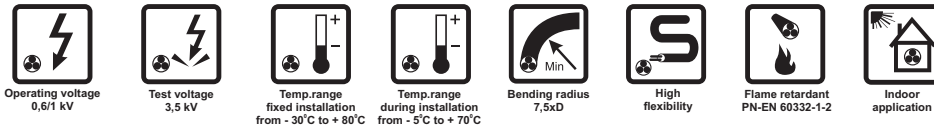
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1777 004	5x0,75	9.6	36.0	126
1777 005	3x1,0	8.7	28.8	104
1777 006	5x1,0	10.1	48.0	146
1777 007	3x1,5	9.3	43.2	125
1777 008	5x1,5	10.8	72.0	178
1777 009	3x2,5	10.6	72.0	171
1777 010	5x2,5	12.5	120.0	251
1777 011	3x4	11.7	115.2	225
1777 012	5x4	13.9	192.0	335
1777 013	3x6	12.9	172.8	295
1777 014	5x6	15.4	288.0	447
1777 015	3x10	15.9	288.0	477
1777 016	5x10	19.2	480.0	735
1777 017	3x16	18.3	460.8	689
1777 018	5x16	22.3	768.0	1082
1777 019	3x25	21.9	720.0	1012
1777 020	5x25	26.8	1200.0	1597
1777 021	3x35	24.3	1008.0	1321
1777 022	5x35	30.1	1680.0	2114
1777 023	3x50	31.4	1440.0	2003
1777 024	5x50	38.7	2400.0	3179
YSLY-OB 0,6/1 kV				
1778 001	2x0,5	7.6	9.6	71
1778 002	4x0,5	8.5	19.2	92
1778 003	2x0,75	7.9	14.4	79
1778 004	4x0,75	8.9	28.8	106
1778 005	2x1,0	8.3	19.2	90
1778 006	4x1,0	9.4	38.4	122
1778 007	2x1,5	8.8	28.8	106
1778 008	4x1,5	10.0	57.6	148
1778 009	2x2,5	10.1	48.0	145
1778 010	4x2,5	11.5	96.0	206
1778 011	2x4	11.1	76.8	186
1778 012	4x4	12.7	153.6	273
1778 013	2x6	12.2	115.2	239
1778 014	4x6	14.1	230.4	363
1778 015	2x10	15.0	192.0	381
1778 016	4x10	17.5	384.0	593
1778 017	2x16	17.2	307.2	541
1778 018	4x16	20.1	614.4	862
1778 019	2x25	20.3	480.0	779
1778 020	4x25	24.1	960.0	1270
1778 021	2x35	22.8	672.0	1022
1778 022	4x35	27.1	1344.0	1683
1778 023	2x50	29.2	960.0	1555
1778 024	4x50	34.9	1920.0	2531

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOFLEKS LiYY-Nr 0,6/1 kV**  
**TECHNOFLEKS LiYYżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOFLEKS LiYY-Nr 0,6/1 kV** and **TECHNOFLEKS LiYYżo-Nr 0,6/1 kV** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiYYżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers in to cable core, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYżo-Nr 0,6/1 kV** cable,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOFLEKS LiYY-Nr-O 0,6/1 kV** and **TECHNOFLEKS LiYYżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y-Nr 0,6/1 kV** and **TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH-Nr 0,6/1 kV** and **TECHNOFLEKS LiHHżo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYYv-Nr 0,6/1 kV** and **TECHNOFLEKS LiYYvżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LiYY-Nr 0,6/1 kV**  
**TECHNOFLEKS LiYYżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	0,6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0165 026	2 x 0,5	6.0	9.6	48
0165 034	3 x 0,5	6.3	14.4	56
0165 035	4 x 0,5	6.8	19.2	66
0165 016	5 x 0,5	7.5	24.0	82
0165 036	6 x 0,5	8.1	28.8	96
0165 037	7 x 0,5	8.1	33.6	99
0165 038	8 x 0,5	8.7	38.4	114
0165 039	10 x 0,5	10.4	48.0	143
0165 040	12 x 0,5	10.7	57.6	161
0165 041	14 x 0,5	11.3	67.2	181
0165 042	16 x 0,5	11.9	76.8	204
0165 043	18 x 0,5	12.8	86.4	234
0165 044	19 x 0,5	12.8	91.2	237
0165 045	21 x 0,5	13.4	100.8	261
0165 046	24 x 0,5	15.1	115.2	302
0165 047	27 x 0,5	15.4	129.6	329
0165 048	30 x 0,5	16.0	144.0	358
0165 049	36 x 0,5	17.2	172.8	423
0165 050	37 x 0,5	17.2	177.6	426
0165 051	44 x 0,5	19.7	211.2	520
0165 052	48 x 0,5	20.1	230.4	557
0165 053	52 x 0,5	20.6	249.6	594
0165 054	56 x 0,5	21.2	268.8	636
0165 055	60 x 0,5	21.9	288.0	679
0165 056	2 x 0,75	6.3	14.4	56
0165 001	3 x 0,75	6.7	21.6	66
0165 002	4 x 0,75	7.3	28.8	80
0165 057	5 x 0,75	7.9	36.0	97
0165 058	6 x 0,75	8.6	43.2	115
0165 014	7 x 0,75	8.6	50.4	119
0165 027	8 x 0,75	9.3	57.6	138
0165 059	10 x 0,75	11.1	72.0	173
0165 060	12 x 0,75	11.5	86.4	196

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0165 061	14 x 0,75	12.3	100.8	226
0165 062	16 x 0,75	13.0	115.2	256
0165 063	18 x 0,75	13.7	129.6	286
0165 064	19 x 0,75	13.7	136.8	290
0165 065	21 x 0,75	14.6	151.2	327
0165 066	24 x 0,75	16.2	172.8	370
0165 067	27 x 0,75	16.5	194.4	403
0165 068	30 x 0,75	17.1	216.0	440
0165 069	36 x 0,75	18.9	259.2	539
0165 070	37 x 0,75	18.9	266.4	543
0165 071	44 x 0,75	21.2	316.8	641
0165 072	48 x 0,75	21.5	345.6	686
0165 073	52 x 0,75	22.1	374.4	734
0165 074	56 x 0,75	23.2	403.2	807
0165 075	60 x 0,75	23.9	432.0	861
0165 076	2 x 1,0	6.7	19.2	65
0165 022	3 x 1,0	7.1	28.8	78
0165 012	4 x 1,0	7.7	38.4	93
0165 020	5 x 1,0	8.4	48.0	114
0165 077	6 x 1,0	9.2	57.6	136
0165 015	7 x 1,0	9.2	67.2	142
0165 078	8 x 1,0	10.1	76.8	169
0165 028	10 x 1,0	11.9	96.0	207
0165 009	12 x 1,0	12.4	115.2	239
0165 024	14 x 1,0	13.1	134.4	270
0165 079	16 x 1,0	13.8	153.6	306
0165 029	18 x 1,0	14.8	172.8	349
0165 080	19 x 1,0	14.8	182.4	355
0165 081	21 x 1,0	15.5	201.6	391
0165 018	24 x 1,0	17.2	230.4	444
0165 082	27 x 1,0	17.6	259.2	486
0165 030	30 x 1,0	18.3	288.0	531
0165 083	36 x 1,0	20.1	345.6	648

**TECHNOFLEKS LiYY-Nr 0,6/1 kV**  
**TECHNOFLEKS LiYYżo-Nr 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0165 084	37 x 1,0	20.1	355.2	654
0165 085	44 x 1,0	22.6	422.4	774
0165 086	48 x 1,0	23.4	460.8	850
0165 087	52 x 1,0	24.1	499.2	911
0165 088	56 x 1,0	24.8	537.6	976
0165 089	60 x 1,0	25.5	576.0	1041
0165 003	2 x 1,5	7.2	28.8	79
0165 004	3 x 1,5	7.6	43.2	96
0165 005	4 x 1,5	8.4	57.6	118
0165 006	5 x 1,5	9.2	72.0	146
0165 090	6 x 1,5	10.2	86.4	177
0165 007	7 x 1,5	10.2	100.8	186
0165 091	8 x 1,5	11.0	115.2	215
0165 023	10 x 1,5	13.1	144.0	269
0165 008	12 x 1,5	13.6	172.8	307
0165 019	14 x 1,5	14.5	201.6	354
0165 017	16 x 1,5	15.3	230.4	401
0165 092	18 x 1,5	16.1	259.2	448
0165 093	19 x 1,5	16.1	273.6	457
0165 094	21 x 1,5	16.9	302.4	505
0165 095	24 x 1,5	19.3	345.6	591
0165 096	27 x 1,5	19.7	388.8	647
0165 097	30 x 1,5	20.4	432.0	708
0165 098	36 x 1,5	22.0	518.4	841
0165 099	37 x 1,5	22.0	532.8	849
0165 100	44 x 1,5	25.2	633.6	1029
0165 101	48 x 1,5	25.6	691.2	1104
0165 102	52 x 1,5	26.3	748.8	1184
0165 103	56 x 1,5	27.1	806.4	1270
0165 104	60 x 1,5	27.9	864.0	1356
0165 013	2 x 2,5	8.1	48.0	105
0165 010	3 x 2,5	8.6	72.0	130
0165 105	4 x 2,5	9.4	96.0	159
0165 106	5 x 2,5	10.5	120.0	202
0165 107	6 x 2,5	11.5	144.0	241
0165 108	7 x 2,5	11.5	168.0	255
0165 109	8 x 2,5	12.6	192.0	301
0165 110	10 x 2,5	15.1	240.0	377
0165 111	12 x 2,5	15.6	288.0	430
0165 112	14 x 2,5	16.4	336.0	488
0165 113	16 x 2,5	17.3	384.0	554
0165 114	18 x 2,5	18.3	432.0	621
0165 115	19 x 2,5	18.3	456.0	635
0165 116	21 x 2,5	19.6	504.0	721

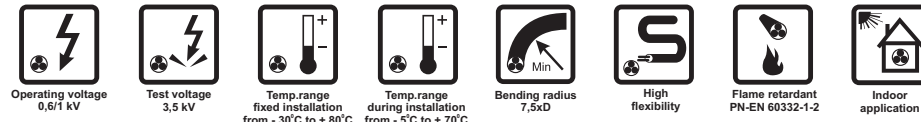
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0165 117	24 x 2,5	21.8	576.0	818
0165 118	27 x 2,5	22.3	648.0	899
0165 119	30 x 2,5	23.6	720.0	1007
0165 120	36 x 2,5	25.4	864.0	1196
0165 121	37 x 2,5	25.4	888.0	1210
0165 122	44 x 2,5	28.6	1056.0	1435
0165 123	48 x 2,5	29.1	1152.0	1544
0165 124	52 x 2,5	29.9	1248.0	1658
0165 125	56 x 2,5	30.9	1344.0	1781
0165 126	60 x 2,5	32.0	1440.0	1917
0165 031	2 x 4,0	9.5	76.8	152
0165 021	3 x 4,0	10.3	115.2	195
0165 127	4 x 4,0	11.3	153.6	241
0165 128	5 x 4,0	12.6	192.0	304
0165 129	7 x 4,0	13.7	268.8	386
0165 032	3 x 6,0	11.5	172.8	262
0165 130	4 x 6,0	12.8	230.4	332
0165 131	5 x 6,0	14.1	288.0	413
0165 132	7 x 6,0	15.7	403.2	538
0165 133	3 x 10,0	14.5	288.0	437
0165 134	4 x 10,0	15.9	384.0	546
0165 135	5 x 10,0	17.6	480.0	682
0165 136	7 x 10,0	19.7	672.0	899
0165 137	3 x 16,0	16.8	460.8	640
0165 138	4 x 16,0	19.0	614.4	826
0165 139	5 x 16,0	20.9	768.0	1029
0165 140	7 x 16,0	23.3	1075.2	1359
0165 141	3 x 25,0	20.6	720.0	965
0165 033	4 x 25,0	23.2	960.0	1241
0165 142	5 x 25,0	25.6	1200.0	1549
0165 143	3 x 35,0	23.5	1008.0	1298
0165 144	4 x 35,0	25.9	1344.0	1641
0165 145	5 x 35,0	28.7	1680.0	2056
0165 146	3 x 50,0	28.8	1440.0	1895
0165 147	4 x 50,0	32.1	1920.0	2414
0165 148	5 x 50,0	35.6	2400.0	3028

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYY 0,6/1 kV TECHNOFLEKS LiYYżo 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYY 0,6/1 kV** and **TECHNOFLEKS LiYYżo 0,6/1 kV** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers in to a cable core, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYżo 0,6/1 kV** cable,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYY-O 0,6/1 kV** and **TECHNOFLEKS LiYYżo-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y 0,6/1 kV** and **TECHNOFLEKS LiY11Yżo 0,6/1 kV** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH 0,6/1 kV** and **TECHNOFLEKS LiHHżo 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYYv 0,6/1 kV** and **TECHNOFLEKS LiYYvżo 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LiYY 0,6/1 kV**  
**TECHNOFLEKS LiYYżo 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	0,6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0724 002	2 x 0,5	6.0	9.6	48
0724 003	3 x 0,5	6.3	14.4	56
0724 004	4 x 0,5	6.8	19.2	66
0724 005	5 x 0,5	7.5	24.0	82
0724 006	6 x 0,5	8.1	28.8	96
0724 007	7 x 0,5	8.1	33.6	99
0724 008	8 x 0,5	8.7	38.4	114
0724 009	10 x 0,5	10.4	48.0	143
0724 010	12 x 0,5	10.7	57.6	161
0724 011	14 x 0,5	11.3	67.2	181
0724 012	16 x 0,5	11.9	76.8	204
0724 013	18 x 0,5	12.8	86.4	234
0724 014	19 x 0,5	12.8	91.2	237
0724 015	21 x 0,5	13.4	100.8	261
0724 016	24 x 0,5	15.1	115.2	302
0724 017	27 x 0,5	15.4	129.6	329
0724 018	30 x 0,5	16.0	144.0	358
0724 019	36 x 0,5	17.2	172.8	423
0724 020	37 x 0,5	17.2	177.6	426
0724 021	44 x 0,5	19.7	211.2	520
0724 022	48 x 0,5	20.1	230.4	557
0724 023	52 x 0,5	20.6	249.6	594
0724 024	56 x 0,5	21.2	268.8	636
0724 025	60 x 0,5	21.9	288.0	679
0724 026	2 x 0,75	6.3	14.4	56
0724 027	3 x 0,75	6.7	21.6	66
0724 028	4 x 0,75	7.3	28.8	80
0724 029	5 x 0,75	7.9	36.0	97
0724 030	6 x 0,75	8.6	43.2	115
0724 031	7 x 0,75	8.6	50.4	119
0724 032	8 x 0,75	9.3	57.6	138
0724 033	10 x 0,75	11.1	72.0	173
0724 034	12 x 0,75	11.5	86.4	196

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0724 035	14 x 0,75	12.3	100.8	226
0724 036	16 x 0,75	13.0	115.2	256
0724 037	18 x 0,75	13.7	129.6	286
0724 038	19 x 0,75	13.7	136.8	290
0724 039	21 x 0,75	14.6	151.2	327
0724 040	24 x 0,75	16.2	172.8	370
0724 041	27 x 0,75	16.5	194.4	403
0724 042	30 x 0,75	17.1	216.0	440
0724 043	36 x 0,75	18.9	259.2	539
0724 044	37 x 0,75	18.9	266.4	543
0724 045	44 x 0,75	21.2	316.8	641
0724 046	48 x 0,75	21.5	345.6	686
0724 047	52 x 0,75	22.1	374.4	734
0724 048	56 x 0,75	23.2	403.2	807
0724 049	60 x 0,75	23.9	432.0	861
0724 050	2 x 1,0	6.7	19.2	65
0724 051	3 x 1,0	7.1	28.8	78
0724 052	4 x 1,0	7.7	38.4	93
0724 053	5 x 1,0	8.4	48.0	114
0724 054	6 x 1,0	9.2	57.6	136
0724 055	7 x 1,0	9.2	67.2	142
0724 056	8 x 1,0	10.1	76.8	169
0724 057	10 x 1,0	11.9	96.0	207
0724 058	12 x 1,0	12.4	115.2	239
0724 059	14 x 1,0	13.1	134.4	270
0724 060	16 x 1,0	13.8	153.6	306
0724 061	18 x 1,0	14.8	172.8	349
0724 062	19 x 1,0	14.8	182.4	355
0724 063	21 x 1,0	15.5	201.6	391
0724 064	24 x 1,0	17.2	230.4	444
0724 065	27 x 1,0	17.6	259.2	486
0724 066	30 x 1,0	18.3	288.0	531
0724 067	36 x 1,0	20.1	345.6	648

**TECHNOFLEKS LiYY 0,6/1 kV**  
**TECHNOFLEKS LiYYżo 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0724 068	37 x 1,0	20.1	355.2	654
0724 069	44 x 1,0	22.6	422.4	774
0724 070	48 x 1,0	23.4	460.8	850
0724 071	52 x 1,0	24.1	499.2	911
0724 072	56 x 1,0	24.8	537.6	976
0724 073	60 x 1,0	25.5	576.0	1041
0724 001	2 x 1,5	7.2	28.8	79
0724 074	3 x 1,5	7.6	43.2	96
0724 075	4 x 1,5	8.4	57.6	118
0724 076	5 x 1,5	9.2	72.0	146
0724 077	6 x 1,5	10.2	86.4	177
0724 078	7 x 1,5	10.2	100.8	186
0724 079	8 x 1,5	11.0	115.2	215
0724 080	10 x 1,5	13.1	144.0	269
0724 081	12 x 1,5	13.6	172.8	307
0724 082	14 x 1,5	14.5	201.6	354
0724 083	16 x 1,5	15.3	230.4	401
0724 084	18 x 1,5	16.1	259.2	448
0724 085	19 x 1,5	16.1	273.6	457
0724 086	21 x 1,5	16.9	302.4	505
0724 087	24 x 1,5	19.3	345.6	591
0724 088	27 x 1,5	19.7	388.8	647
0724 089	30 x 1,5	20.4	432.0	708
0724 090	36 x 1,5	22.0	518.4	841
0724 091	37 x 1,5	22.0	532.8	849
0724 092	44 x 1,5	25.2	633.6	1029
0724 093	48 x 1,5	25.6	691.2	1104
0724 094	52 x 1,5	26.3	748.8	1184
0724 095	56 x 1,5	27.1	806.4	1270
0724 096	60 x 1,5	27.9	864.0	1356
0724 097	2 x 2,5	8.1	48.0	105
0724 098	3 x 2,5	8.6	72.0	130
0724 099	4 x 2,5	9.4	96.0	159
0724 100	5 x 2,5	10.5	120.0	202
0724 101	6 x 2,5	11.5	144.0	241
0724 102	7 x 2,5	11.5	168.0	255
0724 103	8 x 2,5	12.6	192.0	301
0724 104	10 x 2,5	15.1	240.0	377
0724 105	12 x 2,5	15.6	288.0	430
0724 106	14 x 2,5	16.4	336.0	488
0724 107	16 x 2,5	17.3	384.0	554
0724 108	18 x 2,5	18.3	432.0	621
0724 109	19 x 2,5	18.3	456.0	635
0724 110	21 x 2,5	19.6	504.0	721

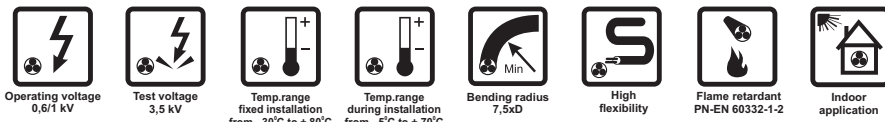
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0724 111	24 x 2,5	21.8	576.0	818
0724 112	27 x 2,5	22.3	648.0	899
0724 113	30 x 2,5	23.6	720.0	1007
0724 114	36 x 2,5	25.4	864.0	1196
0724 115	37 x 2,5	25.4	888.0	1210
0724 116	44 x 2,5	28.6	1056.0	1435
0724 117	48 x 2,5	29.1	1152.0	1544
0724 118	52 x 2,5	29.9	1248.0	1658
0724 119	56 x 2,5	30.9	1344.0	1781
0724 120	60 x 2,5	32.0	1440.0	1917
0724 121	2 x 4,0	9.5	76.8	152
0724 122	3 x 4,0	10.3	115.2	195
0724 123	4 x 4,0	11.3	153.6	241
0724 124	5 x 4,0	12.6	192.0	304
0724 125	7 x 4,0	13.7	268.8	386
0724 126	3 x 6,0	11.5	172.8	262
0724 127	4 x 6,0	12.8	230.4	332
0724 128	5 x 6,0	14.1	288.0	413
0724 129	7 x 6,0	15.7	403.2	538
0724 130	3 x 10,0	14.5	288.0	437
0724 131	4 x 10,0	15.9	384.0	546
0724 132	5 x 10,0	17.6	480.0	682
0724 133	7 x 10,0	19.7	672.0	899
0724 134	3 x 16,0	16.8	460.8	640
0724 135	4 x 16,0	19.0	614.4	826
0724 136	5 x 16,0	20.9	768.0	1029
0724 137	7 x 16,0	23.3	1075.2	1359
0724 138	3 x 25,0	20.6	720.0	965
0724 139	4 x 25,0	23.2	960.0	1241
0724 140	5 x 25,0	25.6	1200.0	1549
0724 141	3 x 35,0	23.5	1008.0	1298
0724 142	4 x 35,0	25.9	1344.0	1641
0724 143	5 x 35,0	28.7	1680.0	2056
0724 144	3 x 50,0	28.8	1440.0	1895
0724 145	4 x 50,0	32.1	1920.0	2414
0724 146	5 x 50,0	35.6	2400.0	3028

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYY-P 0,6/1 kV TECHNOFLEKS LiYY-P-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYY-P 0,6/1 kV** and **TECHNOFLEKS LiYY-P-Nr 0,6/1 kV** are multipair flexible cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYY-P 0,6/1 kV**, black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYY-P-Nr 0,6/1 kV**,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYY-P-O 0,6/1 kV** and **TECHNOFLEKS LiYY-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y-P 0,6/1 kV** and **TECHNOFLEKS LiY11Y-P-Nr 0,6/1 kV** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH-P 0,6/1 kV** and **TECHNOFLEKS LiHH-P-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYyv-P 0,6/1 kV** and **TECHNOFLEKS LiYyv-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.



## TECHNOFLEKS LiYY-P 0,6/1 kV TECHNOFLEKS LiYY-P-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0475 004	2 x 2 x 0,5	9.0	19.2	82
0475 005	3 x 2 x 0,5	9.6	28.8	95
0475 006	4 x 2 x 0,5	10.7	38.4	122
0475 007	5 x 2 x 0,5	11.8	48.0	145
0475 008	6 x 2 x 0,5	13.1	57.6	175
0475 009	7 x 2 x 0,5	13.1	67.2	193
0475 010	8 x 2 x 0,5	13.9	76.8	215
0475 011	10 x 2 x 0,5	16.0	96.0	269
0475 012	12 x 2 x 0,5	16.8	115.2	309
0475 013	16 x 2 x 0,5	19.4	153.6	413
0475 014	18 x 2 x 0,5	20.4	172.8	455
0475 015	20 x 2 x 0,5	21.4	192.0	497
0475 016	25 x 2 x 0,5	24.0	240.0	625
0475 017	30 x 2 x 0,5	25.9	288.0	727
0475 018	40 x 2 x 0,5	29.5	384.0	932
0475 019	50 x 2 x 0,5	32.8	480.0	1149
0475 002	2 x 2 x 0,75	9.7	28.8	96
0475 020	3 x 2 x 0,75	10.4	43.2	118
0475 021	4 x 2 x 0,75	11.5	57.6	146
0475 003	5 x 2 x 0,75	12.8	72.0	181
0475 022	6 x 2 x 0,75	14.0	86.4	210
0475 023	7 x 2 x 0,75	14.0	100.8	233
0475 001	8 x 2 x 0,75	15.1	115.2	268
0475 024	10 x 2 x 0,75	17.2	144.0	327
0475 025	12 x 2 x 0,75	18.0	172.8	376
0475 026	16 x 2 x 0,75	20.8	230.4	503
0475 027	20 x 2 x 0,75	23.3	288.0	631
0475 028	2 x 2 x 1,0	10.5	38.4	119
0475 029	3 x 2 x 1,0	11.1	57.6	138
0475 030	4 x 2 x 1,0	12.4	76.8	178
0475 031	5 x 2 x 1,0	13.7	96.0	214
0475 032	6 x 2 x 1,0	15.1	115.2	256

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0475 033	7 x 2 x 1,0	15.1	134.4	285
0475 034	8 x 2 x 1,0	16.1	153.6	319
0475 035	10 x 2 x 1,0	18.3	192.0	389
0475 036	12 x 2 x 1,0	19.6	230.4	470
0475 037	14 x 2 x 1,0	21.0	268.8	537
0475 038	16 x 2 x 1,0	22.2	307.2	602
0475 039	18 x 2 x 1,0	23.8	345.6	690
0475 040	20 x 2 x 1,0	24.9	384.0	754
0475 041	2 x 2 x 1,5	11.4	57.6	148
0475 042	3 x 2 x 1,5	12.3	86.4	180
0475 043	4 x 2 x 1,5	13.5	115.2	224
0475 044	5 x 2 x 1,5	15.1	144.0	278
0475 045	6 x 2 x 1,5	16.5	172.8	324
0475 046	7 x 2 x 1,5	16.5	201.6	363
0475 047	8 x 2 x 1,5	17.6	230.4	408
0475 048	10 x 2 x 1,5	20.5	288.0	520
0475 049	12 x 2 x 1,5	21.4	345.6	602
0475 050	14 x 2 x 1,5	23.3	403.2	712
0475 051	16 x 2 x 1,5	24.7	460.8	797
0475 052	18 x 2 x 1,5	26.0	518.4	884
0475 053	20 x 2 x 1,5	27.3	576.0	971
0475 054	2 x 2 x 2,5	13.0	96.0	201
0475 055	3 x 2 x 2,5	13.8	144.0	241
0475 056	4 x 2 x 2,5	15.5	192.0	312
0475 057	5 x 2 x 2,5	17.1	240.0	377
0475 058	6 x 2 x 2,5	19.1	288.0	461
0475 059	7 x 2 x 2,5	19.1	336.0	517
0475 060	8 x 2 x 2,5	20.3	384.0	582
0475 061	10 x 2 x 2,5	23.6	480.0	737
0475 062	12 x 2 x 2,5	24.7	576.0	853
0475 063	14 x 2 x 2,5	26.5	672.0	978
0475 064	16 x 2 x 2,5	28.1	768.0	1102

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**YSLCY-JZ 0,6/1 kV, YSLCY-OZ 0,6/1 kV  
YSLCY-JB 0,6/1 kV, YSLCY-OB 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**YSLCY-JZ 0,6/1 kV, YSLCY-OZ 0,6/1 kV, YSLCY-JB 0,6/1 kV** and **YSLCY-OB 0,6/1 kV** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Sheathing black PVC is resistant to UV radiation.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code:
  - YSLCY-OZ 0,6/1 kV** - black and white conductor number printed on it,
  - YSLCY-OB 0,6/1 kV** - colours in accordance with PN-HD 308 standard, green-yellow protective conductor located in the outer layer in **YSLCY-JZ 0,6/1 kV** and **YSLCY-JB 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**YSLCY-JZ OR 0,6/1 kV, YSLCY-OZ OR 0,6/1 kV, YSLCY-JB OR 0,6/1 kV** and **YSLCY-OB OR 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**HSLCH-JZ 0,6/1 kV, HSLCH-OZ 0,6/1 kV, HSLCH-JB 0,6/1 kV** and **HSLCH-OB 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**YSLCY-JZ 0,6/1 kV, YSLCY-OZ 0,6/1 kV**  
**YSLCY-JB 0,6/1 kV, YSLCY-OB 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 40 to + 80°C
Voltage test	4 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
<b>YSLCY-JZ 0,6/1 kV</b>				
1783 001	2x0,5	8.1	19.3	73
1783 002	3x0,5	8.4	24.6	83
1783 003	4x0,5	9.0	30.6	97
1783 004	5x0,5	9.7	40.4	118
1783 005	6x0,5	10.4	47.8	137
1783 006	7x0,5	10.4	52.6	139
1783 007	8x0,5	11.1	58.4	157
1783 008	10x0,5	12.6	72.4	184
1783 009	12x0,5	13.0	82.5	204
1783 010	14x0,5	13.5	93.4	225
1783 011	16x0,5	14.2	104.8	252
1783 012	18x0,5	14.9	116.2	278
1783 013	20x0,5	15.5	127.4	305
1783 014	21x0,5	15.5	132.2	306
1783 015	27x0,5	17.5	173.3	377
1783 016	30x0,5	18.1	189.5	408
1783 017	36x0,5	19.4	222.3	477
1783 018	40x0,5	20.1	243.7	515
1783 019	44x0,5	21.6	267.6	558
1783 020	48x0,5	22.2	288.0	605
1783 021	52x0,5	22.8	309.1	644
1783 022	56x0,5	23.6	352.3	708
1783 023	61x0,5	24.3	379.2	754
1783 024	2x0,75	8.4	24.6	80
1783 025	3x0,75	8.8	32.6	95
1783 026	4x0,75	9.4	41.0	110
1783 027	5x0,75	10.2	53.7	135
1783 028	6x0,75	10.9	62.7	157
1783 029	7x0,75	10.9	69.9	160
1783 030	8x0,75	11.7	79.3	183
1783 031	10x0,75	13.3	97.7	215
1783 032	12x0,75	13.7	113.5	240
1783 033	14x0,75	14.3	129.1	266
1783 034	16x0,75	15.0	145.3	298
1783 035	18x0,75	15.8	161.7	331
1783 036	20x0,75	16.6	184.9	371
1783 037	21x0,75	16.6	192.1	374

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
1783 038	27x0,75	18.6	241.5	453
1783 039	30x0,75	19.3	265.2	492
1783 040	36x0,75	20.7	312.8	577
1783 041	40x0,75	21.4	343.8	624
1783 042	44x0,75	23.5	399.8	711
1783 043	48x0,75	23.9	430.4	758
1783 044	52x0,75	24.5	461.7	807
1783 045	56x0,75	25.4	493.4	872
1783 046	61x0,75	26.1	532.3	928
1783 047	2x1,0	8.8	30.2	89
1783 048	3x1,0	9.2	40.6	106
1783 049	4x1,0	10.0	55.5	130
1783 050	5x1,0	10.7	67.0	155
1783 051	6x1,0	11.5	79.3	180
1783 052	7x1,0	11.5	88.9	185
1783 053	8x1,0	12.3	99.9	211
1783 054	10x1,0	14.1	123.7	249
1783 055	12x1,0	14.5	144.0	279
1783 056	14x1,0	15.1	164.7	312
1783 057	16x1,0	15.9	186.0	350
1783 058	18x1,0	16.8	214.3	396
1783 059	20x1,0	17.5	235.7	435
1783 060	21x1,0	17.5	245.3	440
1783 061	27x1,0	19.7	309.7	536
1783 062	30x1,0	20.4	340.7	583
1783 063	36x1,0	22.1	402.9	696
1783 064	40x1,0	22.9	443.8	755
1783 065	44x1,0	25.1	511.4	855
1783 066	48x1,0	25.5	551.4	911
1783 067	52x1,0	26.2	592.8	973
1783 068	56x1,0	26.9	634.1	1038
1783 069	61x1,0	28.1	712.1	1148
1783 070	2x1,5	9.3	40.8	103
1783 071	3x1,5	9.9	60.1	130
1783 072	4x1,5	10.6	76.6	155
1783 073	5x1,5	11.4	92.7	186
1783 074	6x1,5	12.3	109.5	217

**YSLCY-JZ 0,6/1 kV, YSLCY-OZ 0,6/1 kV  
YSLCY-JB 0,6/1 kV, YSLCY-OB 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1783 075	7x1,5	12.3	123.9	225
1783 076	8x1,5	13.2	140.6	259
1783 077	10x1,5	15.1	174.3	306
1783 078	12x1,5	15.6	204.4	346
1783 079	14x1,5	16.4	241.9	396
1783 080	16x1,5	17.2	273.2	446
1783 081	18x1,5	18.1	304.7	496
1783 082	20x1,5	19.0	336.3	549
1783 083	21x1,5	19.0	350.7	556
1783 084	27x1,5	21.4	444.6	681
1783 085	30x1,5	22.3	489.9	752
1783 086	36x1,5	24.2	604.4	911
1783 087	40x1,5	25.3	665.8	1001
1783 088	44x1,5	27.5	758.0	1114
1783 089	48x1,5	28.1	817.7	1203
1783 090	52x1,5	28.9	879.5	1286
1783 091	56x1,5	29.7	941.4	1374
1783 092	61x1,5	30.5	1017.5	1469
1783 093	2x2,5	10.7	67.0	137
1783 094	3x2,5	11.2	92.2	169
1783 095	4x2,5	12.1	118.6	205
1783 096	5x2,5	13.1	145.2	249
1783 097	6x2,5	14.2	172.0	294
1783 098	7x2,5	14.2	196.0	306
1783 099	8x2,5	15.2	222.6	352
1783 100	10x2,5	17.8	284.6	428
1783 101	12x2,5	18.3	334.1	487
1783 102	14x2,5	19.2	384.9	550
1783 103	16x2,5	20.2	436.0	622
1783 104	18x2,5	21.3	487.4	695
1783 105	20x2,5	22.5	538.6	780
1783 106	21x2,5	22.5	562.6	789
1783 107	27x2,5	25.9	740.2	1006
1783 108	30x2,5	26.8	816.1	1098
1783 109	36x2,5	29.2	996.3	1339
1783 110	40x2,5	30.3	1098.2	1456
1783 111	44x2,5	32.9	1206.9	1601
1783 112	48x2,5	33.5	1306.0	1717
1783 113	52x2,5	34.6	1406.8	1852
1783 114	56x2,5	35.6	1508.1	1981
1783 115	61x2,5	36.8	1664.9	2146
1783 116	2x4	11.7	98.5	176
1783 117	3x4	12.3	138.3	223
1783 118	4x4	13.3	179.3	274
1783 119	5x4	14.5	220.8	337
1783 120	7x4	15.6	300.4	420
1783 121	2x6	12.8	139.6	222
1783 122	3x6	13.5	199.0	288
1783 123	4x6	14.7	259.7	359
1783 124	5x6	16.1	327.4	451
1783 125	7x6	17.5	446.9	571
1783 126	2x10	15.6	223.6	334

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1783 127	3x10	16.6	328.9	452
1783 128	4x10	18.2	429.9	570
1783 129	5x10	19.9	531.1	712
1783 130	7x10	21.9	728.7	922
1783 131	2x16	17.9	352.1	475
1783 132	3x16	19.0	509.1	645
1783 133	4x16	20.8	668.3	822
1783 134	5x16	23.0	828.1	1042
1783 135	7x16	25.5	1165.8	1382
1783 136	2x25	21.0	534.6	670
1783 137	3x25	22.6	778.8	934
1783 138	4x25	25.2	1049.4	1232
1783 139	5x25	28.1	1326.5	1584
1783 140	7x25	30.7	1820.3	2054
1783 141	2x35	23.9	756.8	902
1783 142	3x35	25.6	1099.0	1256
1783 143	4x35	28.6	1473.1	1654
1783 144	5x35	31.6	1824.0	2094
1783 145	7x35	34.8	2511.9	2746
YSLCY-OZ 0,6/1 kV				
1784 001	2x0,5	8.1	19.3	73
1784 002	3x0,5	8.4	24.6	83
1784 003	4x0,5	9.0	30.6	97
1784 004	5x0,5	9.7	40.4	118
1784 005	7x0,5	10.4	52.6	139
1784 006	2x0,75	8.4	24.6	80
1784 007	3x0,75	8.8	32.6	95
1784 008	4x0,75	9.4	41.0	110
1784 009	5x0,75	10.2	53.7	135
1784 010	7x0,75	10.9	69.9	160
1784 011	2x1,0	8.8	30.2	89
1784 012	3x1,0	9.2	40.6	106
1784 013	4x1,0	10.0	55.5	130
1784 014	5x1,0	10.7	67.0	155
1784 015	7x1,0	11.5	88.9	185
1784 016	2x1,5	9.3	40.8	103
1784 017	3x1,5	9.9	60.1	130
1784 018	4x1,5	10.6	76.6	155
1784 019	5x1,5	11.4	92.7	186
1784 020	7x1,5	12.3	123.9	225
1784 021	2x2,5	10.7	67.0	137
1784 022	3x2,5	11.2	92.2	169
1784 023	4x2,5	12.1	118.6	205
1784 024	5x2,5	13.1	145.2	249
1784 025	7x2,5	14.2	196.0	306
1784 026	2x4	11.7	98.5	176
1784 027	3x4	12.3	138.3	223
1784 028	4x4	13.3	179.3	274

**YSLCY-JZ 0,6/1 kV, YSLCY-OZ 0,6/1 kV  
YSLCY-JB 0,6/1 kV, YSLCY-OB 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1784 029	5x4	14.5	220.8	337
1784 030	7x4	15.6	300.4	420
1784 031	2x6	12.8	139.6	222
1784 032	3x6	13.5	199.0	288
1784 033	4x6	14.7	259.7	359
1784 034	5x6	16.1	327.4	451
1784 035	7x6	17.5	446.9	571
1784 036	2x10	15.6	223.6	334
1784 037	3x10	16.6	328.9	452
1784 038	4x10	18.2	429.9	570
1784 039	5x10	19.9	531.1	712
1784 040	7x10	21.9	728.7	922
1784 041	2x16	17.9	352.1	475
1784 042	3x16	19.0	509.1	645
1784 043	4x16	20.8	668.3	822
1784 044	5x16	23.0	828.1	1042
1784 045	7x16	25.5	1165.8	1382
1784 046	2x25	21.0	534.6	670
1784 047	3x25	22.6	778.8	934
1784 048	4x25	25.2	1049.4	1232
1784 049	5x25	28.1	1326.5	1584
1784 050	7x25	30.7	1820.3	2054
1784 051	2x35	23.9	756.8	902
1784 052	3x35	25.6	1099.0	1256
1784 053	4x35	28.6	1473.1	1654
1784 054	5x35	31.6	1824.0	2094
1784 055	7x35	34.8	2511.9	2746
YSLCY-JB 0,6/1 kV				
1785 001	3x0,5	8.4	24.6	83
1785 002	5x0,5	9.7	40.4	118
1785 003	3x0,75	8.8	32.6	95
1785 004	5x0,75	10.2	53.7	135
1785 005	3x1,0	9.2	40.6	106
1785 006	5x1,0	10.7	67.0	155
1785 007	3x1,5	9.9	60.1	130

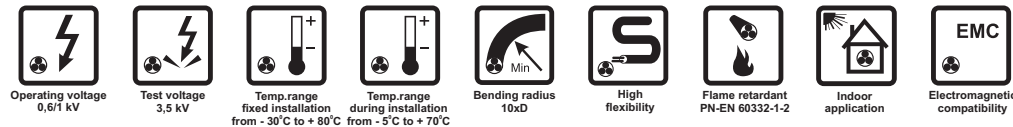
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1785 008	5x1,5	11.4	92.7	186
1785 009	3x2,5	11.2	92.2	169
1785 010	5x2,5	13.1	145.2	249
1785 011	3x4	12.3	138.3	223
1785 012	5x4	14.5	220.8	337
1785 013	3x6	13.5	199.0	288
1785 014	5x6	16.1	327.4	451
1785 015	3x10	16.6	328.9	452
1785 016	5x10	19.9	531.1	712
1785 017	3x16	19.0	509.1	645
1785 018	5x16	23.0	828.1	1042
1785 019	3x25	22.6	778.8	934
1785 020	5x25	28.1	1326.5	1584
1785 021	3x35	25.6	1099.0	1256
1785 022	5x35	31.6	1824.0	2094
YSLCY-OB 0,6/1 kV				
1786 001	2x0,5	8.1	19.3	73
1786 002	4x0,5	9.0	30.6	97
1786 003	2x0,75	8.4	24.6	80
1786 004	4x0,75	9.4	41.0	110
1786 005	2x1,0	8.8	30.2	89
1786 006	4x1,0	10.0	55.5	130
1786 007	2x1,5	9.3	40.8	103
1786 008	4x1,5	10.6	76.6	155
1786 009	2x2,5	10.7	67.0	137
1786 010	4x2,5	12.1	118.6	205
1786 011	2x4	11.7	98.5	176
1786 012	4x4	13.3	179.3	274
1786 013	2x6	12.8	139.6	222
1786 014	4x6	14.7	259.7	359
1786 015	2x10	15.6	223.6	334
1786 016	4x10	18.2	429.9	570
1786 017	2x16	17.9	352.1	475
1786 018	4x16	20.8	668.3	822
1786 019	2x25	21.0	534.6	670
1786 020	4x25	25.2	1049.4	1232
1786 021	2x35	23.9	756.8	902
1786 022	4x35	28.6	1473.1	1654

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOFLEKS LiYCY-Nr 0,6/1 kV**  
**TECHNOFLEKS LiYCYżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOFLEKS LiYCY-Nr 0,6/1 kV** and **TECHNOFLEKS LiYCYżo-Nr 0,6/1 kV** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiYCYżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYCYżo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOFLEKS LiYCY-Nr-O 0,6/1 kV** and **TECHNOFLEKS LiYCYżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiYCY11Y-Nr 0,6/1 kV** and **TECHNOFLEKS LiYCY11Yżo-Nr 0,6/1 kV** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHCH-Nr 0,6/1 kV** and **TECHNOFLEKS LiHCHżo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYCYv-Nr 0,6/1 kV** and **TECHNOFLEKS LiYCYvżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LiYCY-Nr 0,6/1 kV**  
**TECHNOFLEKS LiYCYżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0124 054	1 x 0,5	4.3	9.6	30
0124 011	2 x 0,5	6.5	19.3	53
0124 055	3 x 0,5	6.8	24.2	63
0124 001	4 x 0,5	7.3	30.0	75
0124 056	5 x 0,5	8.0	36.2	92
0124 002	6 x 0,5	8.7	46.2	112
0124 057	7 x 0,5	8.7	51.0	114
0124 002	8 x 0,5	9.3	57.4	131
0124 058	10 x 0,5	11.0	70.9	161
0124 035	12 x 0,5	11.3	81.2	181
0124 059	14 x 0,5	11.9	92.4	203
0124 060	16 x 0,5	12.7	103.9	234
0124 049	18 x 0,5	13.4	114.9	260
0124 061	19 x 0,5	13.4	119.7	263
0124 062	21 x 0,5	14.0	130.9	289
0124 063	24 x 0,5	15.8	156.1	338
0124 064	25 x 0,5	16.1	161.8	362
0124 065	27 x 0,5	16.1	171.4	367
0124 066	30 x 0,5	16.7	187.7	399
0124 067	34 x 0,5	17.9	210.6	463
0124 068	36 x 0,5	17.9	220.2	468
0124 069	37 x 0,5	17.9	225.0	471
0124 070	40 x 0,5	19.0	241.5	526
0124 071	41 x 0,5	19.6	248.2	558
0124 072	1 x 0,75	4.5	12.6	34
0124 004	2 x 0,75	6.8	24.2	59
0124 032	3 x 0,75	7.2	32.2	73
0124 044	4 x 0,75	7.8	40.6	89
0124 073	5 x 0,75	8.5	52.9	111
0124 074	6 x 0,75	9.2	62.2	132
0124 075	7 x 0,75	9.2	69.4	135
0124 003	8 x 0,75	10.1	78.1	161

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0124 045	10 x 0,75	11.7	96.6	191
0124 046	12 x 0,75	12.3	112.1	222
0124 047	14 x 0,75	12.9	128.0	250
0124 048	16 x 0,75	13.6	144.2	281
0124 076	18 x 0,75	14.5	160.5	320
0124 077	19 x 0,75	14.5	167.7	324
0124 078	21 x 0,75	15.3	190.6	364
0124 042	24 x 0,75	16.9	217.1	407
0124 079	25 x 0,75	17.2	225.2	435
0124 080	27 x 0,75	17.2	239.6	443
0124 027	30 x 0,75	17.8	263.1	482
0124 081	34 x 0,75	19.6	296.2	581
0124 082	1 x 1,0	4.7	16.0	38
0124 005	2 x 1,0	7.2	29.8	67
0124 013	3 x 1,0	7.6	40.2	84
0124 010	4 x 1,0	8.3	54.8	106
0124 025	5 x 1,0	9.0	67.0	130
0124 015	6 x 1,0	10.0	77.8	157
0124 008	7 x 1,0	10.0	87.4	163
0124 022	8 x 1,0	10.7	98.9	188
0124 009	10 x 1,0	12.7	123.1	231
0124 008	12 x 1,0	13.0	142.7	261
0124 052	14 x 1,0	13.7	163.7	294
0124 016	16 x 1,0	14.6	184.7	339
0124 039	18 x 1,0	15.5	212.8	384
0124 033	19 x 1,0	15.5	222.4	390
0124 083	21 x 1,0	16.2	243.7	430
0124 084	24 x 1,0	17.9	277.8	482
0124 085	25 x 1,0	18.3	288.6	515
0124 086	27 x 1,0	18.3	307.8	527
0124 087	30 x 1,0	19.4	338.8	595

**TECHNOFLEKS LiYCY-Nr 0,6/1 kV**  
**TECHNOFLEKS LiYCYżo-Nr 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0124 088	1 x 1,5	5.0	20.8	44
0124 006	2 x 1,5	7.7	40.4	81
0124 019	3 x 1,5	8.1	55.6	102
0124 030	4 x 1,5	9.0	76.6	131
0124 031	5 x 1,5	10.0	92.2	165
0124 021	6 x 1,5	10.8	108.7	195
0124 012	7 x 1,5	10.8	123.1	203
0124 023	8 x 1,5	11.6	139.6	235
0124 014	10 x 1,5	13.7	173.3	287
0124 038	12 x 1,5	14.4	203.4	336
0124 051	14 x 1,5	15.1	234.0	379
0124 024	16 x 1,5	16.0	271.9	435
0124 089	18 x 1,5	16.8	303.1	485
0124 034	19 x 1,5	16.8	317.5	494
0124 090	21 x 1,5	17.6	348.8	545
0124 041	24 x 1,5	20.0	398.3	633
0124 026	25 x 1,5	20.4	413.9	676
0124 091	1 x 2,5	5.4	32.1	56
0124 040	2 x 2,5	8.7	65.4	108
0124 020	3 x 2,5	9.2	91.0	139
0124 018	4 x 2,5	10.2	116.7	176
0124 037	5 x 2,5	11.1	143.1	217
0124 028	6 x 2,5	12.3	169.7	264
0124 029	7 x 2,5	12.3	193.7	278
0124 092	8 x 2,5	13.2	220.0	322
0124 093	10 x 2,5	15.8	280.9	401
0124 094	12 x 2,5	16.3	330.4	459
0124 053	14 x 2,5	17.1	380.9	521
0124 095	16 x 2,5	18.0	431.9	590
0124 096	18 x 2,5	19.4	482.8	679
0124 097	2 x 4,0	10.3	98.5	154

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0124 098	3 x 4,0	10.9	137.8	201
0124 050	4 x 4,0	11.9	178.8	251
0124 099	5 x 4,0	13.2	220.0	318
0124 100	7 x 4,0	14.5	299.7	410
0124 101	3 x 6,0	12.3	198.5	271
0124 102	4 x 6,0	13.4	258.9	340
0124 103	5 x 6,0	14.9	319.9	432
0124 104	7 x 6,0	16.4	446.0	561
0124 105	3 x 10,0	15.1	320.4	429
0124 106	4 x 10,0	16.6	427.4	553
0124 107	5 x 10,0	18.3	528.6	693
0124 108	7 x 10,0	20.4	725.9	918
0124 109	3 x 16,0	17.5	506.9	627
0124 110	4 x 16,0	19.7	666.1	824
0124 111	5 x 16,0	21.6	825.6	1033
0124 112	7 x 16,0	24.2	1162.0	1395
0124 113	3 x 25,0	21.3	776.7	928
0124 114	4 x 25,0	24.1	1046.4	1242
0124 115	5 x 25,0	26.5	1296.5	1555
0124 116	3 x 35,0	24.4	1095.7	1263
0124 117	4 x 35,0	27.0	1467.9	1647
0124 118	5 x 35,0	29.8	1818.7	2071
0124 119	3 x 50,0	29.9	1579.1	1824
0124 120	4 x 50,0	33.2	2075.6	2371
0124 121	5 x 50,0	36.9	2600.9	3014

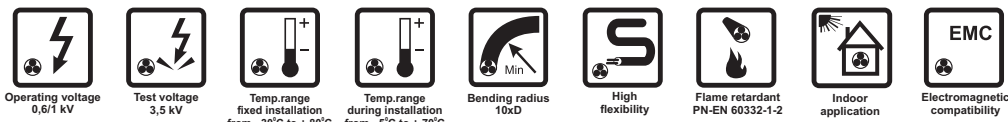
Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOFLEKS LiYCY 0,6/1 kV TECHNOFLEKS LiYCYżo 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYCY 0,6/1 kV** and **TECHNOFLEKS LiYCYżo 0,6/1 kV** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYCYżo 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYCY-O 0,6/1 kV** and **TECHNOFLEKS LiYCYżo-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiYCY11Y 0,6/1 kV** and **TECHNOFLEKS LiYCY11Yżo 0,6/1 kV** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHCH 0,6/1 kV** and **TECHNOFLEKS LiHCHżo 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEKS LiYCYv 0,6/1 kV** and **TECHNOFLEKS LiYCYvżo 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOFLEKS LIYCY 0,6/1 kV TECHNOFLEKS LIYCYżo 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			mm
0113 009	1 x 0,5	4.3	9.6	30
0113 010	2 x 0,5	6.5	19.3	53
0113 011	3 x 0,5	6.8	24.2	63
0113 001	4 x 0,5	7.3	30.0	75
0113 012	5 x 0,5	8.0	36.2	92
0113 013	6 x 0,5	8.7	46.2	112
0113 014	7 x 0,5	8.7	51.0	114
0113 002	8 x 0,5	9.3	57.4	131
0113 015	10 x 0,5	11.0	70.9	161
0113 016	12 x 0,5	11.3	81.2	181
0113 017	14 x 0,5	11.9	92.4	203
0113 018	16 x 0,5	12.7	103.9	234
0113 019	18 x 0,5	13.4	114.9	260
0113 020	19 x 0,5	13.4	119.7	263
0113 021	21 x 0,5	14.0	130.9	289
0113 022	24 x 0,5	15.8	156.1	338
0113 023	25 x 0,5	16.1	161.8	362
0113 024	27 x 0,5	16.1	171.4	367
0113 025	30 x 0,5	16.7	187.7	399
0113 026	34 x 0,5	17.9	210.6	463
0113 027	36 x 0,5	17.9	220.2	468
0113 028	37 x 0,5	17.9	225.0	471
0113 003	40 x 0,5	19.0	241.5	526
0113 029	41 x 0,5	19.6	248.2	558
0113 030	1 x 0,75	4.5	12.6	34
0113 031	2 x 0,75	6.8	24.2	59
0113 032	3 x 0,75	7.2	32.2	73
0113 033	4 x 0,75	7.8	40.6	89
0113 034	5 x 0,75	8.5	52.9	111
0113 035	6 x 0,75	9.2	62.2	132
0113 036	7 x 0,75	9.2	69.4	135

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			mm
0113 004	8 x 0,75	10.1	78.1	161
0113 037	10 x 0,75	11.7	96.6	191
0113 038	12 x 0,75	12.3	112.1	222
0113 039	14 x 0,75	12.9	128.0	250
0113 040	16 x 0,75	13.6	144.2	281
0113 041	18 x 0,75	14.5	160.5	320
0113 042	19 x 0,75	14.5	167.7	324
0113 043	21 x 0,75	15.3	190.6	364
0113 044	24 x 0,75	16.9	217.1	407
0113 045	25 x 0,75	17.2	225.2	435
0113 046	27 x 0,75	17.2	239.6	443
0113 047	30 x 0,75	17.8	263.1	482
0113 048	34 x 0,75	19.6	296.2	581
0113 049	1 x 1,0	4.7	16.0	38
0113 050	2 x 1,0	7.2	29.8	67
0113 051	3 x 1,0	7.6	40.2	84
0113 052	4 x 1,0	8.3	54.8	106
0113 053	5 x 1,0	9.0	67.0	130
0113 054	6 x 1,0	10.0	77.8	157
0113 055	7 x 1,0	10.0	87.4	163
0113 056	8 x 1,0	10.7	98.9	188
0113 057	10 x 1,0	12.7	123.1	231
0113 058	12 x 1,0	13.0	142.7	261
0113 059	14 x 1,0	13.7	163.7	294
0113 060	16 x 1,0	14.6	184.7	339
0113 061	18 x 1,0	15.5	212.8	384
0113 062	19 x 1,0	15.5	222.4	390
0113 063	21 x 1,0	16.2	243.7	430
0113 064	24 x 1,0	17.9	277.8	482
0113 065	25 x 1,0	18.3	288.6	515
0113 066	27 x 1,0	18.3	307.8	527

**TECHNOFLEKS LIYCY 0,6/1 kV**  
**TECHNOFLEKS LIYCYżo 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0113 067	30 x 1,0	19.4	338.8	595
0113 068	1 x 1,5	5.0	20.8	44
0113 069	2 x 1,5	7.7	40.4	81
0113 005	3 x 1,5	8.1	55.6	102
0113 070	4 x 1,5	9.0	76.6	131
0113 071	5 x 1,5	10.0	92.2	165
0113 072	6 x 1,5	10.8	108.7	195
0113 073	7 x 1,5	10.8	123.1	203
0113 074	8 x 1,5	11.6	139.6	235
0113 075	10 x 1,5	13.7	173.3	287
0113 076	12 x 1,5	14.4	203.4	336
0113 077	14 x 1,5	15.1	234.0	379
0113 078	16 x 1,5	16.0	271.9	435
0113 079	18 x 1,5	16.8	303.1	485
0113 080	19 x 1,5	16.8	317.5	494
0113 081	21 x 1,5	17.6	348.8	545
0113 082	24 x 1,5	20.0	398.3	633
0113 083	25 x 1,5	20.4	413.9	676
0113 084	1 x 2,5	5.4	32.1	56
0113 085	2 x 2,5	8.7	65.4	108
0113 086	3 x 2,5	9.2	91.0	139
0113 087	4 x 2,5	10.2	116.7	176
0113 088	5 x 2,5	11.1	143.1	217
0113 089	6 x 2,5	12.3	169.7	264
0113 090	7 x 2,5	12.3	193.7	278
0113 091	8 x 2,5	13.2	220.0	322
0113 092	10 x 2,5	15.8	280.9	401
0113 093	12 x 2,5	16.3	330.4	459
0113 094	14 x 2,5	17.1	380.9	521
0113 095	16 x 2,5	18.0	431.9	590
0113 096	18 x 2,5	19.4	482.8	679

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0113 097	2 x 4,0	10.3	98.5	154
0113 098	3 x 4,0	10.9	137.8	201
0113 006	4 x 4,0	11.9	178.8	251
0113 007	5 x 4,0	13.2	220.0	318
0113 099	7 x 4,0	14.5	299.7	410
0113 100	3 x 6,0	12.3	198.5	271
0113 008	4 x 6,0	13.4	258.9	340
0113 101	5 x 6,0	14.9	319.9	432
0113 102	7 x 6,0	16.4	446.0	561
0113 103	3 x 10,0	15.1	320.4	429
0113 104	4 x 10,0	16.6	427.4	553
0113 105	5 x 10,0	18.3	528.6	693
0113 106	7 x 10,0	20.4	725.9	918
0113 107	3 x 16,0	17.5	506.9	627
0113 108	4 x 16,0	19.7	666.1	824
0113 109	5 x 16,0	21.6	825.6	1033
0113 110	7 x 16,0	24.2	1162.0	1395
0113 111	3 x 25,0	21.3	776.7	928
0113 112	4 x 25,0	24.1	1046.4	1242
0113 113	5 x 25,0	26.5	1296.5	1555
0113 114	3 x 35,0	24.4	1095.7	1263
0113 115	4 x 35,0	27.0	1467.9	1647
0113 116	5 x 35,0	29.8	1818.7	2071
0113 117	3 x 50,0	29.9	1579.1	1824
0113 118	4 x 50,0	33.2	2075.6	2371
0113 119	5 x 50,0	36.9	2600.9	3014

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYCY-P 0,6/1 kV TECHNOFLEKS LiYCY-P-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYCY-P 0,6/1 kV** and **TECHNOFLEKS LiYCY-P-Nr 0,6/1 kV** are multipair flexible, overall shielded cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYCY-P 0,6/1 kV**, black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYCY-P-Nr 0,6/1 kV**,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYCEY-P 0,6/1 kV** and **TECHNOFLEKS LiYCEY-P-Nr 0,6/1 kV** - cables with flexible drain wire stranded of tin-plated annealed copper wires, laid under a shield.

**TECHNOFLEKS LiYCY-P-O 0,6/1 kV** and **TECHNOFLEKS LiYCY-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiYC11Y-P 0,6/1 kV** and **TECHNOFLEKS LiYC11Y-P-Nr 0,6/1 kV** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiYCYv-P 0,6/1 kV** and **TECHNOFLEKS LiYCYv-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOFLEKS LIYCY-P 0,6/1 kV**  
**TECHNOFLEKS LIYCY-P-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage Uo/U	0.6/1 kV	Operating temperature range		for fixed installation from - 30 to + 80°C		
Voltage test	3.5 kV rms	for movable installation		from - 5 to + 70°C		
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius		10 x cable diameter		
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility		flame retardant		
at short-circuit	+ 160°C	Combustibility tests		PN-EN 60332-1-2, IEC 60332-1-2		
		Reference standards		DIN VDE 0245, DIN VDE 0250, DIN VDE 0281		

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0668 001	2 x 2 x 0,5	9.5	38.7	103
0668 004	3 x 2 x 0,5	10.3	50.5	122
0668 007	4 x 2 x 0,5	11.2	61.8	146
0668 008	5 x 2 x 0,5	12.5	74.2	179
0668 009	6 x 2 x 0,5	13.6	86.6	205
0668 010	7 x 2 x 0,5	13.6	96.2	223
0668 011	8 x 2 x 0,5	14.6	107.9	254
0668 012	10 x 2 x 0,5	16.6	139.4	314
0668 013	12 x 2 x 0,5	17.4	161.1	355
0668 014	14 x 2 x 0,5	18.9	183.6	419
0668 015	16 x 2 x 0,5	20.0	206.3	466
0668 016	18 x 2 x 0,5	21.0	228.6	511
0668 017	2 x 2 x 0,75	10.4	50.5	124
0668 018	3 x 2 x 0,75	10.9	65.8	142
0668 019	4 x 2 x 0,75	12.2	83.0	179
0668 020	5 x 2 x 0,75	13.3	100.3	210
0668 006	6 x 2 x 0,75	14.7	117.8	250
0668 021	7 x 2 x 0,75	14.7	132.2	273
0668 022	8 x 2 x 0,75	15.7	155.8	310
0668 023	10 x 2 x 0,75	17.8	191.1	375
0668 024	12 x 2 x 0,75	19.0	222.3	445
0668 025	14 x 2 x 0,75	20.3	255.2	503
0668 002	2 x 2 x 1,0	11.0	61.3	143
0668 005	3 x 2 x 1,0	11.6	82.0	164

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0668 026	4 x 2 x 1,0	12.9	104.0	207
0668 027	5 x 2 x 1,0	14.4	126.6	253
0668 003	6 x 2 x 1,0	15.7	155.8	298
0668 028	7 x 2 x 1,0	15.7	175.0	327
0668 029	8 x 2 x 1,0	16.7	197.3	364
0668 030	10 x 2 x 1,0	19.3	242.5	460
0668 031	12 x 2 x 1,0	20.2	283.7	524
0668 032	14 x 2 x 1,0	21.6	326.4	594
0668 033	2 x 2 x 1,5	11.9	82.8	174
0668 034	3 x 2 x 1,5	12.8	113.5	208
0668 035	4 x 2 x 1,5	14.0	145.3	256
0668 036	5 x 2 x 1,5	15.7	184.6	320
0668 037	6 x 2 x 1,5	17.1	217.7	371
0668 038	7 x 2 x 1,5	17.1	246.5	409
0668 039	8 x 2 x 1,5	18.2	278.7	457
0668 040	10 x 2 x 1,5	21.1	344.0	577
0668 041	2 x 2 x 2,5	13.5	124.8	231
0668 042	3 x 2 x 2,5	14.5	174.9	280
0668 043	4 x 2 x 2,5	16.1	233.8	355
0668 044	5 x 2 x 2,5	17.7	286.8	425
0668 045	6 x 2 x 2,5	19.7	339.7	515
0668 046	7 x 2 x 2,5	19.7	387.7	571
0668 047	8 x 2 x 2,5	20.9	439.4	639

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**YSLYCY-JZ 0,6/1 kV, YSLYCY-OZ 0,6/1 kV  
YSLYCY-JB 0,6/1 kV, YSLYCY-OB 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**YSLYCY-JZ 0,6/1 kV, YSLYCY-OZ 0,6/1 kV, YSLYCY-JB 0,6/1 kV** and **YSLYCY-OB 0,6/1 kV** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Sheathing black PVC is resistant to UV radiation.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code:
  - YSLYCY-OZ 0,6/1 kV** - black and white conductor number printed on it,
  - YSLYCY-OB 0,6/1 kV** - colours in accordance with PN-HD 308 standard,
  - green-yellow protective conductor in the outer layer in **YSLYCY-JZ 0,6/1 kV** and **YSLYCY-JB 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**YSLYSY-JZ 0,6/1 kV, YSLYSY-OZ 0,6/1 kV, YSLYSY-JB 0,6/1 kV** and **YSLYSY-OB 0,6/1 kV** – cables of enhanced protection against mechanical damage, shielded with zinc-plated steel wire braid.

**YSLYCY-JZ 0,6/1 kV, YSLYCY-OZ 0,6/1 kV  
YSLYCY-JB 0,6/1 kV, YSLYCY-OB 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Operating temperature range	
Voltage test	4 kV rms	for fixed installation	from - 40 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
<b>YSLYCY-JZ 0,6/1 kV</b>				
1779 001	2x0,5	9.5	22.0	101
1779 002	3x0,5	10.2	32.1	125
1779 003	4x0,5	10.8	38.4	142
1779 004	5x0,5	11.5	45.7	166
1779 005	6x0,5	12.3	51.9	189
1779 006	7x0,5	12.3	56.7	191
1779 007	8x0,5	13.0	63.3	209
1779 008	10x0,5	14.9	77.8	257
1779 009	12x0,5	15.3	88.5	282
1779 010	14x0,5	15.9	99.6	309
1779 011	16x0,5	16.7	118.0	349
1779 012	18x0,5	17.7	130.7	392
1779 013	20x0,5	18.4	142.4	426
1779 014	21x0,5	18.4	147.2	423
1779 015	27x0,5	20.7	183.2	521
1779 016	30x0,5	21.3	199.4	559
1779 017	36x0,5	23.0	232.9	658
1779 018	40x0,5	23.9	276.8	722
1779 019	44x0,5	26.0	303.9	811
1779 020	48x0,5	26.4	324.8	857
1779 021	52x0,5	27.0	346.5	907
1779 022	56x0,5	28.1	395.3	1001
1779 023	61x0,5	29.1	424.6	1074
1779 024	2x0,75	9.3	26.4	102
1779 025	3x0,75	10.0	38.7	127
1779 026	4x0,75	10.6	47.8	146
1779 027	5x0,75	11.3	56.5	170
1779 028	6x0,75	12.0	65.5	194
1779 029	7x0,75	12.0	72.7	198
1779 030	8x0,75	12.7	82.0	218
1779 031	10x0,75	14.6	101.0	269
1779 032	12x0,75	14.9	116.2	296
1779 033	14x0,75	15.6	132.4	328
1779 034	16x0,75	16.3	155.2	369
1779 035	18x0,75	17.3	173.0	414
1779 036	20x0,75	18.0	189.2	451

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1779 037	21x0,75	18.0	196.4	451
1779 038	27x0,75	20.0	245.8	547
1779 039	30x0,75	20.8	269.9	599
1779 040	36x0,75	22.4	317.4	705
1779 041	40x0,75	23.1	348.4	754
1779 042	44x0,75	25.4	407.0	870
1779 043	48x0,75	25.7	437.1	921
1779 044	52x0,75	26.3	468.4	977
1779 045	56x0,75	27.0	500.1	1038
1779 046	61x0,75	28.1	565.7	1142
1779 047	2x1,0	10.1	36.6	123
1779 048	3x1,0	10.5	47.8	143
1779 049	4x1,0	11.2	58.6	166
1779 050	5x1,0	12.0	70.3	195
1779 051	6x1,0	12.7	82.0	223
1779 052	7x1,0	12.7	91.6	229
1779 053	8x1,0	13.7	103.9	259
1779 054	10x1,0	15.5	127.4	311
1779 055	12x1,0	15.9	147.6	346
1779 056	14x1,0	16.7	175.6	391
1779 057	16x1,0	17.7	197.9	443
1779 058	18x1,0	18.5	219.6	488
1779 059	20x1,0	19.2	240.9	533
1779 060	21x1,0	19.2	250.5	533
1779 061	27x1,0	21.9	315.9	671
1779 062	30x1,0	22.5	346.6	723
1779 063	36x1,0	24.3	432.0	866
1779 064	40x1,0	25.5	474.6	951
1779 065	44x1,0	27.5	546.8	1064
1779 066	48x1,0	28.1	587.3	1142
1779 067	52x1,0	29	630.4	1226
1779 068	56x1,0	29.7	672.6	1302
1779 069	61x1,0	30.5	724.7	1385
1779 070	2x1,5	10.7	47.8	139
1779 071	3x1,5	11.1	63.2	162
1779 072	4x1,5	11.9	79.7	191

**YSLYCY-JZ 0,6/1 kV, YSLYCY-OZ 0,6/1 kV**  
**YSLYCY-JB 0,6/1 kV, YSLYCY-OB 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1779 073	5x1,5	12.7	96.4	225
1779 074	6x1,5	13.7	113.5	265
1779 075	7x1,5	13.7	127.9	273
1779 076	8x1,5	14.6	144.2	303
1779 077	10x1,5	16.7	185.2	373
1779 078	12x1,5	17.4	216.2	425
1779 079	14x1,5	18.1	247.1	472
1779 080	16x1,5	18.9	278.4	526
1779 081	18x1,5	19.8	310.0	581
1779 082	20x1,5	20.9	342.2	648
1779 083	21x1,5	20.9	356.6	649
1779 084	27x1,5	23.7	472.7	827
1779 085	30x1,5	24.7	520.0	907
1779 086	36x1,5	26.6	613.6	1069
1779 087	40x1,5	27.6	700.9	1172
1779 088	44x1,5	30.0	770.2	1308
1779 089	48x1,5	30.5	830.3	1392
1779 090	52x1,5	31.4	891.8	1494
1779 091	56x1,5	32.5	955.2	1605
1779 092	61x1,5	33.3	1031.4	1709
1779 093	2x2,5	11.9	70.1	176
1779 094	3x2,5	12.5	95.6	214
1779 095	4x2,5	13.6	122.5	262
1779 096	5x2,5	14.6	149.0	313
1779 097	6x2,5	15.6	175.6	364
1779 098	7x2,5	15.6	199.6	378
1779 099	8x2,5	16.8	233.5	430
1779 100	10x2,5	19.4	289.5	531
1779 101	12x2,5	20.0	339.4	600
1779 102	14x2,5	21.1	390.9	683
1779 103	16x2,5	22.3	441.9	775
1779 104	18x2,5	23.6	515.5	882
1779 105	20x2,5	25.0	568.6	990
1779 106	21x2,5	25.0	592.6	994
1779 107	27x2,5	28.4	776.0	1265
1779 108	30x2,5	29.5	853.9	1385
1779 109	36x2,5	31.8	1009.1	1636
1779 110	40x2,5	33.0	1111.4	1775
1779 111	44x2,5	35.7	1220.6	1959
1779 112	48x2,5	36.4	1320.3	2107
1779 113	52x2,5	37.5	1426.0	2267
1779 114	56x2,5	38.5	1522.4	2412
1779 115	61x2,5	39.6	1648.1	2579
1779 116	2x4	12.9	101.4	213
1779 117	3x4	13.7	142.3	269
1779 118	4x4	14.8	183.2	325
1779 119	5x4	15.9	224.4	392
1779 120	7x4	17.4	312.2	497
1779 121	2x6	14.1	142.9	267
1779 122	3x6	14.8	202.4	336
1779 123	4x6	16.1	269.8	418
1779 124	5x6	17.6	331.9	516
1779 125	7x6	18.9	451.2	642

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1779 126	2x10	17.2	234.8	408
1779 127	3x10	18.1	333.5	526
1779 128	4x10	19.7	434.5	653
1779 129	5x10	21.6	536.4	813
1779 130	7x10	23.7	755.9	1059
1779 131	2x16	19.5	357.1	555
1779 132	3x16	20.8	514.7	742
1779 133	4x16	22.8	673.9	941
1779 134	5x16	25.5	858.6	1212
1779 135	7x16	28.0	1201.3	1581
1779 136	2x25	23.1	540.4	784
1779 137	3x25	25.0	808.6	1094
1779 138	4x25	27.5	1084.4	1404
1779 139	5x25	30.3	1338.2	1765
1779 140	7x25	33.3	1833.0	2289
1779 141	2x35	25.9	764.2	1043
1779 142	3x35	27.6	1132.9	1429
1779 143	4x35	30.6	1483.8	1839
1779 144	5x35	33.8	1835.6	2314
1779 145	7x35	37.3	2530.0	3040
1779 146	2x50	32.7	1109.8	1557
1779 147	3x50	34.9	1600.4	2112
1779 148	4x50	38.6	2098.9	2715
1779 149	5x50	42.6	2599.0	3425
1779 150	7x50	47.0	3580.2	4478
YSLYCY-OZ 0,6/1 kV				
1780 001	2x0,5	9.5	22.0	101
1780 002	3x0,5	10.2	32.1	125
1780 003	4x0,5	10.8	38.4	142
1780 004	5x0,5	11.5	45.7	166
1780 005	7x0,5	12.3	56.7	191
1780 006	2x0,75	9.3	26.4	102
1780 007	3x0,75	10.0	38.7	127
1780 008	4x0,75	10.6	47.8	146
1780 009	5x0,75	11.3	56.5	170
1780 010	7x0,75	12.0	72.7	198
1780 011	2x1,0	10.1	36.6	123
1780 012	3x1,0	10.5	47.8	143
1780 013	4x1,0	11.2	58.6	166
1780 014	5x1,0	12.0	70.3	195
1780 015	7x1,0	12.7	91.6	229
1780 016	2x1,5	10.7	47.8	139
1780 017	3x1,5	11.1	63.2	162
1780 018	4x1,5	11.9	79.7	191
1780 019	5x1,5	12.7	96.4	225
1780 020	7x1,5	13.7	127.9	273
1780 021	2x2,5	11.9	70.1	176



**YSLYCY-JZ 0,6/1 kV, YSLYCY-OZ 0,6/1 kV  
YSLYCY-JB 0,6/1 kV, YSLYCY-OB 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1780 022	3x2,5	12.5	95.6	214
1780 023	4x2,5	13.6	122.5	262
1780 024	5x2,5	14.6	149.0	313
1780 025	7x2,5	15.6	199.6	378
1780 026	2x4	12.9	101.4	213
1780 027	3x4	13.7	142.3	269
1780 028	4x4	14.8	183.2	325
1780 029	5x4	15.9	224.4	392
1780 030	7x4	17.4	312.2	497
1780 031	2x6	14.1	142.9	267
1780 032	3x6	14.8	202.4	336
1780 033	4x6	16.1	269.8	418
1780 034	5x6	17.6	331.9	516
1780 035	7x6	18.9	451.2	642
1780 036	2x10	17.2	234.8	408
1780 037	3x10	18.1	333.5	526
1780 038	4x10	19.7	434.5	653
1780 039	5x10	21.6	536.4	813
1780 040	7x10	23.7	755.9	1059
1780 041	2x16	19.5	357.1	555
1780 042	3x16	20.8	514.7	742
1780 043	4x16	22.8	673.9	941
1780 044	5x16	25.5	858.6	1212
1780 045	7x16	28	1201.3	1581
1780046	2x25	23.1	540.4	784
1780047	3x25	25	808.6	1094
1780048	4x25	27.5	1084.4	1404
1780049	5x25	30.3	1338.2	1765
1780050	7x25	33.3	1833	2289
1780 051	2x35	25.9	764.2	1043
1780 052	3x35	27.6	1132.9	1429
1780 053	4x35	30.6	1483.8	1839
1780 054	5x35	33.8	1835.6	2314
1780 055	7x35	37.3	2530	3040
1780 056	2x50	32.7	1109.8	1557
1780 057	3x50	34.9	1600.4	2112
1780 058	4x50	38.6	2098.9	2715
1780 059	5x50	42.6	2599	3425
1780 060	7x50	47	3580.2	4478
YSLYCY-JB 0,6/1 kV				
1781 001	3x0,5	10.2	32.1	125
1781 002	5x0,5	11.5	45.7	166
1781 003	3x0,75	10	38.7	127

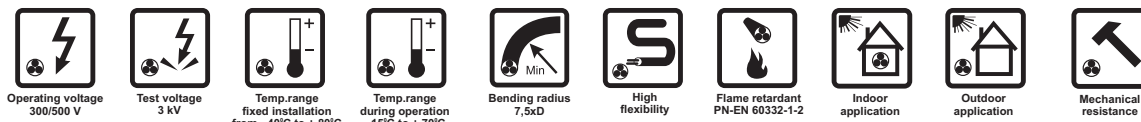
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1781 004	5x0,75	11.3	56.5	170
1781 005	3x1,0	10.5	47.8	143
1781 006	5x1,0	12	70.3	195
1781 007	3x1,5	11.1	63.2	162
1781 008	5x1,5	12.7	96.4	225
1781 009	3x2,5	12.5	95.6	214
1781 010	5x2,5	14.6	149	313
1781 011	3x4	13.7	142.3	269
1781 012	5x4	15.9	224.4	392
1781 013	3x6	14.8	202.4	336
1781 014	5x6	17.6	331.9	516
1781 015	3x10	18.1	333.5	526
1781 016	5x10	21.6	536.4	813
1781 017	3x16	20.8	514.7	742
1781 018	5x16	25.5	858.6	1212
1781 019	3x25	25	808.6	1094
1781 020	5x25	30.3	1338.2	1765
1781 021	3x35	27.6	1132.9	1429
1781 022	5x35	33.8	1835.6	2314
1781 023	3x50	34.9	1600.4	2112
1781 024	5x50	42.6	2599	3425
YSLYCY-OB 0,6/1 kV				
1782 001	2x0,5	9.5	22	101
1782 002	4x0,5	10.8	38.4	142
1782 003	2x0,75	9.3	26.4	102
1782 004	4x0,75	10.6	47.8	146
1782 005	2x1,0	10.1	36.6	123
1782 006	4x1,0	11.2	58.6	166
1782 007	2x1,5	10.7	47.8	139
1782 008	4x1,5	11.9	79.7	191
1782 009	2x2,5	11.9	70.1	176
1782 010	4x2,5	13.6	122.5	262
1782 011	2x4	12.9	101.4	213
1782 012	4x4	14.8	183.2	325
1782 013	2x6	14.1	142.9	267
1782 014	4x6	16.1	269.8	418
1782 015	2x10	17.2	234.8	408
1782 016	4x10	19.7	434.5	653
1782 017	2x16	19.5	357.1	555
1782 018	4x16	22.8	673.9	941
1782 019	2x25	23.1	540.4	784
1782 020	4x25	27.5	1084.4	1404
1782 021	2x35	25.9	764.2	1043
1782 022	4x35	30.6	1483.8	1839
1782 023	2x50	32.7	1109.8	1557
1782 024	4x50	38.6	2098.9	2715

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiY11Y-Nr 300/500 V TECHNOFLEKS LiY11Yżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



Operating voltage  
300/500 V

Test voltage  
3 kV

Temp. range  
fixed installation  
from - 40°C to + 80°C

Temp. range  
during operation  
- 15°C to + 70°C

Bending radius  
7,5xD

High  
flexibility

Flame retardant  
PN-EN 60332-1-2

Indoor  
application

Outdoor  
application

Mechanical  
resistance

### APPLICATIONS

**TECHNOFLEKS LiY11Y-Nr 300/500 V** and **TECHNOFLEKS LiY11Yżo-Nr 300/500 V** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Polyurethane sheath offers enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

The cables are designed to offer high flexibility combined with tensile strength.

Cables are dedicated to work in heavy duty conditions.

The cables are suitable for indoor and outdoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiY11Yżo-Nr 300/500 V** cable,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiY11Yżo-Nr 300/500 V** cable,
- polyurethane cable sheath, grey RAL 7001, other colours also available.

**TECHNOFLEKS LiY11Y-Nr 300/500 V**  
**TECHNOFLEKS LiY11Yżo-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 40 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 15 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1162 002	2x0,5	5.0	9.6	35
1162 007	3x0,5	5.3	14.4	42
1162 008	4x0,5	5.7	19.2	50
1162 009	5x0,5	6.2	24.0	60
1162 005	6x0,5	6.7	28.8	70
1162 010	7x0,5	6.7	33.6	73
1162 011	8x0,5	7.2	38.4	84
1162 012	10x0,5	8.3	48.0	101
1162 013	12x0,5	8.6	57.6	114
1162 014	14x0,5	9.0	67.2	128
1162 015	16x0,5	9.5	76.8	145
1162 016	18x0,5	10.4	86.4	170
1162 017	19x0,5	10.4	91.2	173
1162 018	21x0,5	10.9	100.8	191
1162 019	24x0,5	12.0	115.2	215
1162 020	25x0,5	12.3	120.0	230
1162 021	27x0,5	12.3	129.6	235
1162 022	30x0,5	12.7	144.0	255
1162 023	34x0,5	13.7	163.2	297
1162 024	37x0,5	13.7	177.6	304
1162 025	40x0,5	14.4	192.0	335
1162 026	44x0,5	15.5	211.2	365
1162 027	48x0,5	15.8	230.4	391
1162 028	50x0,5	16.2	240.0	413
1162 029	56x0,5	16.7	268.8	448
1162 030	60x0,5	17.2	288.0	478
1162 006	2x0,75	5.4	14.4	43
1162 001	3x0,75	5.6	21.6	50
1162 031	4x0,75	6.1	28.8	61
1162 032	5x0,75	6.6	36.0	74
1162 033	6x0,75	7.2	43.2	88
1162 034	7x0,75	7.2	50.4	92
1162 035	8x0,75	7.7	57.6	105

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1162 036	10x0,75	9.0	72.0	129
1162 037	12x0,75	9.3	86.4	146
1162 038	14x0,75	10.2	100.8	174
1162 039	16x0,75	10.7	115.2	196
1162 040	18x0,75	11.3	129.6	219
1162 041	19x0,75	11.3	136.8	223
1162 042	21x0,75	11.8	151.2	245
1162 043	24x0,75	13.1	172.8	278
1162 044	25x0,75	13.4	180.0	296
1162 045	27x0,75	13.4	194.4	304
1162 046	30x0,75	13.8	216.0	331
1162 047	34x0,75	15.1	244.8	391
1162 048	37x0,75	15.1	266.4	403
1162 049	40x0,75	15.7	288.0	436
1162 050	44x0,75	16.9	316.8	476
1162 051	48x0,75	17.2	345.6	511
1162 052	50x0,75	17.7	360.0	540
1162 053	56x0,75	18.2	403.2	587
1162 054	60x0,75	19.2	432.0	644
1162 003	2x1	5.7	19.2	50
1162 055	3x1	6.0	28.8	61
1162 056	4x1	6.6	38.4	74
1162 057	5x1	7.1	48.0	90
1162 058	6x1	7.7	57.6	107
1162 059	7x1	7.7	67.2	112
1162 060	8x1	8.3	76.8	130
1162 061	10x1	9.7	96.0	158
1162 062	12x1	10.5	115.2	190
1162 063	14x1	11.0	134.4	214
1162 064	16x1	11.5	153.6	242
1162 065	18x1	12.2	172.8	271
1162 066	19x1	12.2	182.4	276
1162 067	21x1	12.8	201.6	305

**TECHNOFLEKS LiY11Y-Nr 300/500 V**  
**TECHNOFLEKS LiY11Yżo-Nr 300/500 V**

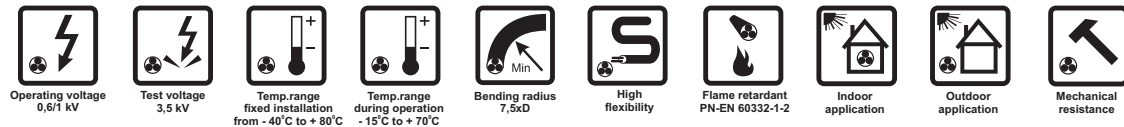
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1162 068	24x1	14.4	230.4	352
1162 069	27x1	14.7	259.2	385
1162 070	30x1	15.2	288.0	421
1162 071	34x1	16.4	326.4	489
1162 072	37x1	16.4	355.2	505
1162 073	40x1	17.0	384.0	545
1162 074	44x1	18.8	422.4	613
1162 075	48x1	19.1	460.8	658
1162 076	50x1	19.6	480.0	695
1162 077	60x1	20.8	576.0	807
1162 078	2x1,5	6.3	28.8	64
1162 079	3x1,5	6.6	43.2	78
1162 080	4x1,5	7.2	57.6	96
1162 081	5x1,5	7.9	72.0	118
1162 082	6x1,5	8.5	86.4	139
1162 083	7x1,5	8.5	100.8	147
1162 084	8x1,5	9.2	115.2	171
1162 085	10x1,5	11.2	144.0	219
1162 086	12x1,5	11.6	172.8	250
1162 087	14x1,5	12.2	201.6	284
1162 088	16x1,5	12.8	230.4	321
1162 089	18x1,5	13.5	259.2	359
1162 090	19x1,5	13.5	273.6	368
1162 091	21x1,5	14.4	302.4	413
1162 092	24x1,5	16.0	345.6	469
1162 093	27x1,5	16.3	388.8	515
1162 094	30x1,5	16.9	432.0	564
1162 095	34x1,5	18.3	489.6	654
1162 096	37x1,5	18.3	532.8	680
1162 097	40x1,5	19.4	576.0	752
1162 098	48x1,5	21.3	691.2	886
1162 099	50x1,5	21.9	720.0	934
1162 100	60x1,5	23.6	864.0	1109
1162 004	2x2,5	7.1	48.0	88
1162 101	3x2,5	7.5	72.0	110
1162 102	4x2,5	8.2	96.0	137
1162 103	5x2,5	9.0	120.0	169
1162 104	6x2,5	10.2	144.0	211
1162 105	7x2,5	10.2	168.0	225
1162 106	8x2,5	11.1	192.0	261
1162 107	10x2,5	12.9	240.0	318
1162 108	12x2,5	13.4	288.0	367
1162 109	14x2,5	14.1	336.0	418
1162 110	16x2,5	15.0	384.0	480
1162 111	18x2,5	15.9	432.0	539

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1162 112	19x2,5	15.9	456.0	553
1162 113	21x2,5	16.7	504.0	612
1162 114	25x2,5	19.4	600.0	755
1162 115	27x2,5	19.4	648.0	783
1162 116	30x2,5	20.1	720.0	859
1162 117	34x2,5	21.7	816.0	995
1162 118	37x2,5	21.7	888.0	1036
1162 119	40x2,5	22.5	960.0	1121
1162 120	44x2,5	24.8	1056.0	1250
1162 121	50x2,5	25.9	1200.0	1419
1162 122	60x2,5	27.5	1440.0	1660
1162 123	2x4	8.5	76.8	130
1162 124	3x4	9.0	115.2	164
1162 125	4x4	10.3	153.6	214
1162 126	5x4	11.3	192.0	264
1162 127	7x4	12.3	268.8	338
1162 128	3x6	10.8	172.8	244
1162 129	4x6	11.9	230.4	306
1162 130	5x6	13.0	288.0	379
1162 131	7x6	14.5	403.2	497
1162 132	3x10	13.4	288.0	402
1162 133	4x10	15.0	384.0	514
1162 134	5x10	16.5	480.0	639
1162 135	7x10	18.1	672.0	832
1162 136	3x16	16.0	460.8	610
1162 137	4x16	17.6	614.4	770
1162 138	5x16	19.8	768.0	978
1162 139	7x16	21.7	1075.2	1279
1162 140	3x25	18.9	720.0	888
1162 141	4x25	20.9	960.0	1128
1162 142	5x25	23.4	1200.0	1426
1162 143	3x35	22.2	1008.0	1232
1162 144	4x35	25.0	1344.0	1589
1162 145	5x35	27.6	1680.0	1985
1162 146	3x50	28.0	1440.0	1842
1162 147	4x50	31.0	1920.0	2336
1162 148	5x50	34.7	2400.0	2955

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOFLEKS LiY11Y-Nr 0,6/1 kV**  
**TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



## APPLICATIONS

**TECHNOFLEKS LiY11Y-Nr 0,6/1 kV** and **TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Polyurethane sheath offers enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

The cables are designed to offer high flexibility combined with tensile strength.

Cables are dedicated to work in heavy duty conditions.

The cables are suitable for indoor and outdoor installations connecting fixed and movable equipment.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV** cable,
- polyurethane cable sheath, grey RAL 7001, other colours also available.

**TECHNOFLEKS LiY11Y-Nr 0,6/1 kV**  
**TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 40 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 15 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0809 010	2 x 0,5	6.4	9.6	54
0809 011	3 x 0,5	6.7	14.4	62
0809 012	4 x 0,5	7.2	19.2	72
0809 013	5 x 0,5	7.9	24.0	88
0809 014	6 x 0,5	8.5	28.8	103
0809 015	7 x 0,5	8.5	33.6	106
0809 016	8 x 0,5	9.1	38.4	122
0809 017	10 x 0,5	10.6	48.0	148
0809 018	12 x 0,5	10.9	57.6	165
0809 019	14 x 0,5	11.5	67.2	186
0809 020	16 x 0,5	12.1	76.8	209
0809 021	18 x 0,5	12.8	86.4	234
0809 022	19 x 0,5	12.8	91.2	237
0809 023	21 x 0,5	13.4	100.8	261
0809 024	24 x 0,5	15.1	115.2	302
0809 025	27 x 0,5	15.4	129.6	329
0809 026	30 x 0,5	16.0	144.0	358
0809 027	36 x 0,5	17.2	172.8	423
0809 028	37 x 0,5	17.2	177.6	426
0809 029	44 x 0,5	19.7	211.2	520
0809 030	48 x 0,5	20.1	230.4	557
0809 031	52 x 0,5	20.6	249.6	594
0809 032	56 x 0,5	21.2	268.8	636
0809 033	60 x 0,5	21.9	288.0	679
0809 034	2 x 0,75	6.7	14.4	61
0809 035	3 x 0,75	7.1	21.6	72
0809 036	4 x 0,75	7.7	28.8	86
0809 037	5 x 0,75	8.3	36.0	104
0809 038	6 x 0,75	9.0	43.2	123
0809 039	7 x 0,75	9.0	50.4	127
0809 040	8 x 0,75	9.7	57.6	146
0809 041	10 x 0,75	11.3	72.0	178

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0809 042	12 x 0,75	11.7	86.4	201
0809 043	14 x 0,75	12.3	100.8	226
0809 044	16 x 0,75	13.0	115.2	256
0809 045	18 x 0,75	13.7	129.6	286
0809 046	19 x 0,75	13.7	136.8	290
0809 047	21 x 0,75	14.6	151.2	327
0809 048	24 x 0,75	16.2	172.8	370
0809 049	27 x 0,75	16.5	194.4	403
0809 050	30 x 0,75	17.1	216.0	440
0809 051	36 x 0,75	18.9	259.2	539
0809 052	37 x 0,75	18.9	266.4	543
0809 053	44 x 0,75	21.2	316.8	641
0809 054	48 x 0,75	21.5	345.6	686
0809 055	52 x 0,75	22.1	374.4	734
0809 056	56 x 0,75	23.2	403.2	807
0809 057	60 x 0,75	23.9	432.0	861
0809 058	2 x 1,0	7.1	19.2	71
0809 059	3 x 1,0	7.5	28.8	84
0809 060	4 x 1,0	8.1	38.4	100
0809 061	5 x 1,0	8.8	48.0	122
0809 062	6 x 1,0	9.6	57.6	145
0809 063	7 x 1,0	9.6	67.2	151
0809 064	8 x 1,0	10.3	76.8	173
0809 065	10 x 1,0	12.1	96.0	212
0809 066	12 x 1,0	12.4	115.2	239
0809 067	14 x 1,0	13.1	134.4	270
0809 068	16 x 1,0	13.8	153.6	306
0809 069	18 x 1,0	14.8	172.8	349
0809 070	19 x 1,0	14.8	182.4	355
0809 071	21 x 1,0	15.5	201.6	391
0809 072	24 x 1,0	17.2	230.4	444
0809 073	27 x 1,0	17.6	259.2	486

**TECHNOFLEKS LiY11Y-Nr 0,6/1 kV**  
**TECHNOFLEKS LiY11Yżo-Nr 0,6/1 kV**

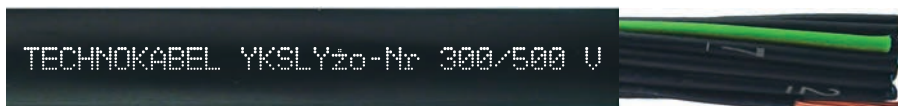
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0809 074	30 x 1,0	18.3	288.0	531
0809 075	36 x 1,0	20.1	345.6	648
0809 076	37 x 1,0	20.1	355.2	654
0809 077	44 x 1,0	22.6	422.4	774
0809 078	48 x 1,0	23.4	460.8	850
0809 079	52 x 1,0	24.1	499.2	911
0809 080	56 x 1,0	24.8	537.6	976
0809 081	60 x 1,0	25.5	576.0	1041
0809 002	2 x 1,5	7.6	28.8	85
0809 003	3 x 1,5	8.0	43.2	103
0809 004	4 x 1,5	8.8	57.6	126
0809 082	5 x 1,5	9.6	72.0	154
0809 083	6 x 1,5	10.4	86.4	182
0809 084	7 x 1,5	10.4	100.8	191
0809 085	8 x 1,5	11.2	115.2	220
0809 086	10 x 1,5	13.1	144.0	269
0809 087	12 x 1,5	13.6	172.8	307
0809 088	14 x 1,5	14.5	201.6	354
0809 089	16 x 1,5	15.3	230.4	401
0809 090	18 x 1,5	16.1	259.2	448
0809 091	19 x 1,5	16.1	273.6	457
0809 092	21 x 1,5	16.9	302.4	505
0809 093	24 x 1,5	19.3	345.6	591
0809 094	27 x 1,5	19.7	388.8	647
0809 095	30 x 1,5	20.4	432.0	708
0809 096	36 x 1,5	22.0	518.4	841
0809 097	37 x 1,5	22.0	532.8	849
0809 098	44 x 1,5	25.2	633.6	1029
0809 099	48 x 1,5	25.6	691.2	1104
0809 101	52 x 1,5	26.3	748.8	1184
0809 102	56 x 1,5	27.1	806.4	1270
0809 103	60 x 1,5	27.9	864.0	1356
0809 005	2 x 2,5	8.5	48.0	113
0809 006	3 x 2,5	9.0	72.0	138
0809 007	4 x 2,5	9.8	96.0	168
0809 104	5 x 2,5	10.7	120.0	206
0809 105	6 x 2,5	11.7	144.0	246
0809 106	7 x 2,5	11.7	168.0	260
0809 107	8 x 2,5	12.6	192.0	301
0809 108	10 x 2,5	15.1	240.0	377
0809 109	12 x 2,5	15.6	288.0	430
0809 110	14 x 2,5	16.4	336.0	488
0809 111	16 x 2,5	17.3	384.0	554
0809 112	18 x 2,5	18.3	432.0	621
0809 113	19 x 2,5	18.3	456.0	635

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0809 114	21 x 2,5	19.6	504.0	721
0809 115	24 x 2,5	21.8	576.0	818
0809 116	27 x 2,5	22.3	648.0	899
0809 117	30 x 2,5	23.6	720.0	1007
0809 118	36 x 2,5	25.4	864.0	1196
0809 119	37 x 2,5	25.4	888.0	1210
0809 120	44 x 2,5	28.6	1056.0	1435
0809 121	48 x 2,5	29.1	1152.0	1544
0809 122	52 x 2,5	29.9	1248.0	1658
0809 123	56 x 2,5	30.9	1344.0	1781
0809 124	60 x 2,5	32.2	1440.0	1931
0809 008	2 x 4,0	9.9	76.8	161
0809 125	3 x 4,0	10.5	115.2	199
0809 126	4 x 4,0	11.5	153.6	246
0809 127	5 x 4,0	12.6	192.0	304
0809 128	7 x 4,0	13.7	268.8	386
0809 129	3 x 6,0	11.7	172.8	267
0809 130	4 x 6,0	12.8	230.4	332
0809 131	5 x 6,0	14.1	288.0	413
0809 132	7 x 6,0	15.7	403.2	538
0809 133	3 x 10,0	14.5	288.0	437
0809 134	4 x 10,0	15.9	384.0	546
0809 135	5 x 10,0	17.6	480.0	682
0809 136	7 x 10,0	19.7	672.0	899
0809 137	3 x 16,0	16.8	460.8	640
0809 138	4 x 16,0	19.0	614.4	826
0809 139	5 x 16,0	20.9	768.0	1029
0809 140	7 x 16,0	23.3	1075.2	1359
0809 141	3 x 25,0	20.6	720.0	965
0809 009	4 x 25,0	23.2	960.0	1241
0809 142	5 x 25,0	25.6	1200.0	1549
0809 143	3 x 35,0	23.5	1008.0	1298
0809 144	4 x 35,0	25.9	1344.0	1641
0809 145	5 x 35,0	28.7	1680.0	2056
0809 146	3 x 50,0	28.8	1440.0	1895
0809 147	4 x 50,0	32.3	1920.0	2428
0809 148	5 x 50,0	35.8	2400.0	3043

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLY-Nr 300/500 V TECHNOKONTROL YKSLYżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from -30°C to +80°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

### APPLICATIONS

**TECHNOKONTROL YKSLY-Nr 300/500 V** and **TECHNOKONTROL YKSLYżo-Nr 300/500 V** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYżo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLY-Nr-O 300/500 V** and **TECHNOKONTROL YKSLYżo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY-Nr 300/500 V** and **TECHNOKONTROL YnKSLYżo-Nr 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH-Nr 300/500 V** and **TECHNOKONTROL HKSLHżo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY-Nr 300/500 V** and **TECHNOKONTROL YvKSLYżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.



**TECHNOKONTROL YKSLY-Nr 300/500 V**  
**TECHNOKONTROL YKSLYżo-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0288 037	2 x 0,5	4.7	9.6	28
0288 061	3 x 0,5	5.0	14.4	35
0288 076	4 x 0,5	5.4	19.2	43
0288 077	5 x 0,5	5.9	24.0	53
0288 034	6 x 0,5	6.4	28.8	62
0288 069	7 x 0,5	6.4	33.6	65
0288 078	8 x 0,5	6.9	38.4	76
0288 079	10 x 0,5	8.0	48.0	90
0288 035	12 x 0,5	8.3	57.6	104
0288 080	14 x 0,5	8.7	67.2	117
0288 081	16 x 0,5	9.2	76.8	134
0288 047	20 x 0,5	10.6	96.0	177
0288 082	21 x 0,5	10.6	100.8	180
0288 083	25 x 0,5	12.2	120.0	222
0288 084	32 x 0,5	13.1	153.6	268
0288 085	37 x 0,5	13.6	177.6	297
0288 086	42 x 0,5	14.8	201.6	350
0288 087	50 x 0,5	16.1	240.0	405
0288 088	56 x 0,5	16.6	268.8	440
0288 089	61 x 0,5	17.1	292.8	472
0288 036	2 x 0,75	5.1	14.4	34
0288 033	3 x 0,75	5.3	21.6	43
0288 001	4 x 0,75	5.8	28.8	53
0288 002	5 x 0,75	6.3	36.0	66
0288 090	6 x 0,75	6.9	43.2	79
0288 003	7 x 0,75	6.9	50.4	83
0288 091	8 x 0,75	7.4	57.6	97
0288 004	10 x 0,75	8.7	72.0	116
0288 038	12 x 0,75	9.0	86.4	134
0288 092	14 x 0,75	9.9	100.8	162
0288 065	16 x 0,75	10.4	115.2	184
0288 093	20 x 0,75	11.5	144.0	228

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0288 094	21 x 0,75	11.5	151.2	233
0288 045	25 x 0,75	13.3	180.0	287
0288 095	32 x 0,75	14.5	230.4	357
0288 096	37 x 0,75	15.0	266.4	395
0288 097	42 x 0,75	16.1	302.4	456
0288 098	50 x 0,75	17.6	360.0	530
0288 006	2 x 1,0	5.4	19.2	40
0288 007	3 x 1,0	5.7	28.8	52
0288 008	4 x 1,0	6.3	38.4	65
0288 009	5 x 1,0	6.8	48.0	81
0288 099	6 x 1,0	7.4	57.6	97
0288 010	7 x 1,0	7.4	67.2	103
0288 011	8 x 1,0	8.0	76.8	119
0288 012	10 x 1,0	9.8	96.0	153
0288 013	12 x 1,0	10.2	115.2	177
0288 014	14 x 1,0	10.7	134.4	201
0288 015	16 x 1,0	11.2	153.6	228
0288 016	20 x 1,0	12.7	192.0	291
0288 064	21 x 1,0	12.7	201.6	297
0288 017	25 x 1,0	14.6	240.0	364
0288 070	32 x 1,0	15.7	307.2	445
0288 019	37 x 1,0	16.3	355.2	495
0288 032	42 x 1,0	17.5	403.2	571
0288 100	50 x 1,0	19.3	480.0	675
0288 020	2 x 1,5	6.0	28.8	51
0288 021	3 x 1,5	6.3	43.2	67
0288 022	4 x 1,5	6.9	57.6	85
0288 023	5 x 1,5	7.6	72.0	106
0288 024	6 x 1,5	8.2	86.4	127
0288 025	7 x 1,5	8.2	100.8	136
0288 044	8 x 1,5	8.9	115.2	159

**TECHNOKONTROL YKSLY-Nr 300/500 V**  
**TECHNOKONTROL YKSLYżo-Nr 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0288 026	10 x 1,5	10.9	144.0	201
0288 039	12 x 1,5	11.3	172.8	234
0288 027	14 x 1,5	12.1	201.6	273
0288 040	16 x 1,5	12.7	230.4	311
0288 041	20 x 1,5	14.3	288.0	395
0288 101	21 x 1,5	14.3	302.4	404
0288 102	25 x 1,5	16.2	360.0	484
0288 042	32 x 1,5	17.5	460.8	596
0288 066	37 x 1,5	18.4	532.8	676
0288 103	42 x 1,5	19.8	604.8	779
0288 104	50 x 1,5	21.6	720.0	909
0288 031	2 x 2,5	6.8	48.0	71
0288 028	3 x 2,5	7.2	72.0	96
0288 029	4 x 2,5	7.9	96.0	123
0288 030	5 x 2,5	8.7	120.0	154
0288 105	6 x 2,5	9.9	144.0	196
0288 046	7 x 2,5	9.9	168.0	210
0288 057	8 x 2,5	10.8	192.0	245
0288 073	10 x 2,5	12.8	240.0	301
0288 055	12 x 2,5	13.3	288.0	351
0288 056	14 x 2,5	14.2	336.0	410
0288 106	16 x 2,5	14.9	384.0	466
0288 074	20 x 2,5	16.6	480.0	583
0288 107	21 x 2,5	16.6	504.0	597
0288 108	25 x 2,5	19.1	600.0	729
0288 109	2 x 4,0	8.2	76.8	103
0288 110	3 x 4,0	8.7	115.2	143
0288 072	4 x 4,0	10.0	153.6	194

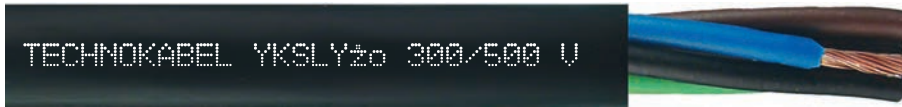
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0288 075	5 x 4,0	11.0	192.0	243
0288 111	7 x 4,0	12.2	268.8	322
0288 067	3 x 6,0	10.5	172.8	216
0288 112	4 x 6,0	11.6	230.4	278
0288 113	5 x 6,0	12.9	288.0	357
0288 114	7 x 6,0	14.4	403.2	474
0288 115	3 x 10,0	13.3	288.0	361
0288 116	4 x 10,0	14.9	384.0	475
0288 117	5 x 10,0	16.4	480.0	600
0288 118	7 x 10,0	18.0	672.0	790
0288 119	3 x 16,0	15.9	460.8	549
0288 120	4 x 16,0	17.5	614.4	713
0288 121	5 x 16,0	19.5	768.0	913
0288 122	7 x 16,0	21.4	1075.2	1211
0288 123	3 x 25,0	18.6	720.0	795
0288 124	4 x 25,0	20.6	960.0	1036
0288 125	5 x 25,0	22.9	1200.0	1325
0288 126	3 x 35,0	21.9	1008.0	1097
0288 127	4 x 35,0	24.5	1344.0	1447
0288 128	5 x 35,0	27.1	1680.0	1839
0288 129	3 x 50,0	27.5	1440.0	1608
0288 130	4 x 50,0	30.5	1920.0	2107
0288 131	5 x 50,0	34.0	2400.0	2707

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLY 300/500 V TECHNOKONTROL YKSLYżo 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from -30°C to +80°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

### APPLICATIONS

**TECHNOKONTROL YKSLY 300/500 V** and **TECHNOKONTROL YKSLYżo 300/500 V** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYżo 300/500 V** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLY-O 300/500 V** and **TECHNOKONTROL YKSLYżo-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY 300/500 V** and **TECHNOKONTROL YnKSLYżo 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH 300/500 V** and **TECHNOKONTROL HKSLHżo 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY 300/500 V** and **TECHNOKONTROL YvKSLYżo 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLY 300/500 V TECHNOKONTROL YKSLYżo 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0285 020	2 x 0,5	4.7	9.6	28
0285 021	3 x 0,5	5.0	14.4	35
0285 022	4 x 0,5	5.4	19.2	43
0285 023	5 x 0,5	5.9	24.0	53
0285 024	6 x 0,5	6.4	28.8	62
0285 025	7 x 0,5	6.4	33.6	65
0285 026	8 x 0,5	6.9	38.4	76
0285 027	10 x 0,5	8.0	48.0	90
0285 028	12 x 0,5	8.3	57.6	104
0285 029	14 x 0,5	8.7	67.2	117
0285 030	16 x 0,5	9.2	76.8	134
0285 031	20 x 0,5	10.6	96.0	177
0285 032	21 x 0,5	10.6	100.8	180
0285 033	25 x 0,5	12.2	120.0	222
0285 034	32 x 0,5	13.1	153.6	268
0285 035	37 x 0,5	13.6	177.6	297
0285 036	42 x 0,5	14.8	201.6	350
0285 037	50 x 0,5	16.1	240.0	405
0285 038	56 x 0,5	16.6	268.8	440
0285 039	61 x 0,5	17.1	292.8	472
0285 015	2 x 0,75	5.1	14.4	34
0285 040	3 x 0,75	5.3	21.6	43
0285 041	4 x 0,75	5.8	28.8	53
0285 001	5 x 0,75	6.3	36.0	66
0285 042	6 x 0,75	6.9	43.2	79
0285 002	7 x 0,75	6.9	50.4	83
0285 043	8 x 0,75	7.4	57.6	97
0285 044	10 x 0,75	8.7	72.0	116
0285 045	12 x 0,75	9.0	86.4	134
0285 046	14 x 0,75	9.9	100.8	162
0285 047	16 x 0,75	10.4	115.2	184
0285 048	20 x 0,75	11.5	144.0	228

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0285 049	21 x 0,75	11.5	151.2	233
0285 050	25 x 0,75	13.3	180.0	287
0285 051	32 x 0,75	14.5	230.4	357
0285 052	37 x 0,75	15.0	266.4	395
0285 053	42 x 0,75	16.1	302.4	456
0285 054	50 x 0,75	17.6	360.0	530
0285 055	2 x 1,0	5.4	19.2	40
0285 056	3 x 1,0	5.7	28.8	52
0285 057	4 x 1,0	6.3	38.4	65
0285 004	5 x 1,0	6.8	48.0	81
0285 058	6 x 1,0	7.4	57.6	97
0285 059	7 x 1,0	7.4	67.2	103
0285 060	8 x 1,0	8.0	76.8	119
0285 005	10 x 1,0	9.8	96.0	153
0285 061	12 x 1,0	10.2	115.2	177
0285 062	14 x 1,0	10.7	134.4	201
0285 063	16 x 1,0	11.2	153.6	228
0285 064	20 x 1,0	12.7	192.0	291
0285 065	21 x 1,0	12.7	201.6	297
0285 066	25 x 1,0	14.6	240.0	364
0285 067	32 x 1,0	15.7	307.2	445
0285 068	37 x 1,0	16.3	355.2	495
0285 069	42 x 1,0	17.5	403.2	571
0285 070	50 x 1,0	19.3	480.0	675
0285 006	2 x 1,5	6.0	28.8	51
0285 004	3 x 1,5	6.3	43.2	67
0285 008	4 x 1,5	6.9	57.6	85
0285 018	5 x 1,5	7.6	72.0	106
0285 071	6 x 1,5	8.2	86.4	127
0285 010	7 x 1,5	8.2	100.8	136
0285 072	8 x 1,5	8.9	115.2	159

## TECHNOKONTROL YKSLY 300/500 V TECHNOKONTROL YKSLYżo 300/500 V

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0285 011	10 x 1,5	10.9	144.0	201
0285 073	12 x 1,5	11.3	172.8	234
0285 074	14 x 1,5	12.1	201.6	273
0285 075	16 x 1,5	12.7	230.4	311
0285 076	20 x 1,5	14.3	288.0	395
0285 077	21 x 1,5	14.3	302.4	404
0285 078	25 x 1,5	16.2	360.0	484
0285 079	32 x 1,5	17.5	460.8	596
0285 080	37 x 1,5	18.4	532.8	676
0285 081	42 x 1,5	19.8	604.8	779
0285 082	50 x 1,5	21.6	720.0	909
0285 083	2 x 2,5	6.8	48.0	71
0285 013	3 x 2,5	7.2	72.0	96
0285 014	4 x 2,5	7.9	96.0	123
0285 084	5 x 2,5	8.7	120.0	154
0285 085	6 x 2,5	9.9	144.0	196
0285 086	7 x 2,5	9.9	168.0	210
0285 087	8 x 2,5	10.8	192.0	245
0285 088	10 x 2,5	12.8	240.0	301
0285 089	12 x 2,5	13.3	288.0	351
0285 090	14 x 2,5	14.2	336.0	410
0285 091	16 x 2,5	14.9	384.0	466
0285 092	20 x 2,5	16.6	480.0	583
0285 093	21 x 2,5	16.6	504.0	597
0285 094	25 x 2,5	19.1	600.0	729
0285 095	2 x 4,0	8.2	76.8	103
0285 096	3 x 4,0	8.7	115.2	143
0285 097	4 x 4,0	10.0	153.6	194

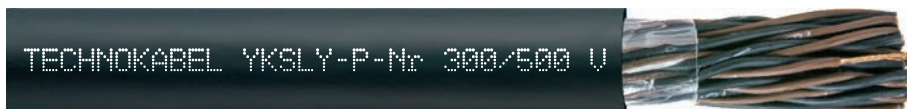
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0285 098	5 x 4,0	11.0	192.0	243
0285 019	7 x 4,0	12.2	268.8	322
0285 099	3 x 6,0	10.5	172.8	216
0285 100	4 x 6,0	11.6	230.4	278
0285 101	5 x 6,0	12.9	288.0	357
0285 102	7 x 6,0	14.4	403.2	474
0285 103	3 x 10,0	13.3	288.0	361
0285 104	4 x 10,0	14.9	384.0	475
0285 105	5 x 10,0	16.4	480.0	600
0285 106	7 x 10,0	18.0	672.0	790
0285 107	3 x 16,0	15.9	460.8	549
0285 108	4 x 16,0	17.5	614.4	713
0285 109	5 x 16,0	19.5	768.0	913
0285 110	7 x 16,0	21.4	1075.2	1211
0285 111	3 x 25,0	18.6	720.0	795
0285 112	4 x 25,0	20.6	960.0	1036
0285 113	5 x 25,0	22.9	1200.0	1325
0285 114	3 x 35,0	21.9	1008.0	1097
0285 115	4 x 35,0	24.5	1344.0	1447
0285 116	5 x 35,0	27.1	1680.0	1839
0285 117	3 x 50,0	27.5	1440.0	1608
0285 118	4 x 50,0	30.5	1920.0	2107
0285 119	5 x 50,0	34.0	2400.0	2707

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLY-P 300/500 V TECHNOKONTROL YKSLY-P-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
7.5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

### APPLICATIONS

**TECHNOKONTROL YKSLY-P 300/500 V** and **TECHNOKONTROL YKSLY-P-Nr 300/500 V** are multipair flexible cables designed for control, protection and monitoring systems or power supply, all in power engineering. Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YKSLY-P 300/500 V** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLY-P-Nr 300/500 V** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLY-P-O 300/500 V** and **TECHNOKONTROL YKSLY-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY-P 300/500 V** and **TECHNOKONTROL YnKSLY-P-Nr 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH-P 300/500 V** and **TECHNOKONTROL HKSLH-P-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY-P 300/500 V** and **TECHNOKONTROL YvKSLY-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLY-P 300/500 V TECHNOKONTROL YKSLY-P-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage Uo/U	300/500 V	Operating temperature range	from - 30 to + 80°C
Voltage test	3.0 kV rms	for fixed installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-17

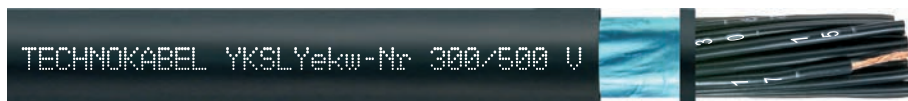
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0291 001	2 x 2 x 0,5	7.0	19.2	53
0291 002	3 x 2 x 0,5	7.4	28.8	63
0291 003	4 x 2 x 0,5	8.2	38.4	79
0291 009	5 x 2 x 0,5	9.0	48.0	94
0291 010	6 x 2 x 0,5	10.2	57.6	120
0291 011	7 x 2 x 0,5	10.2	67.2	133
0291 004	8 x 2 x 0,5	10.9	76.8	148
0291 012	10 x 2 x 0,5	12.6	96.0	187
0291 013	12 x 2 x 0,5	13.1	115.2	214
0291 014	14 x 2 x 0,5	14.2	134.4	251
0291 015	16 x 2 x 0,5	15.1	153.6	282
0291 016	18 x 2 x 0,5	15.8	172.8	311
0291 017	20 x 2 x 0,5	16.6	192.0	340
0291 018	24 x 2 x 0,5	18.0	230.4	398
0291 019	25 x 2 x 0,5	18.5	240.0	422
0291 020	27 x 2 x 0,5	19.1	259.2	451
0291 021	30 x 2 x 0,5	20.0	288.0	494
0291 022	31 x 2 x 0,5	20.3	297.6	508
0291 023	33 x 2 x 0,5	20.9	316.8	537
0291 024	2 x 2 x 0,75	7.6	28.8	69
0291 025	3 x 2 x 0,75	8.1	43.2	80
0291 026	4 x 2 x 0,75	8.9	57.6	100
0291 008	5 x 2 x 0,75	10.2	72.0	131
0291 027	7 x 2 x 0,75	11.1	100.8	169
0291 028	8 x 2 x 0,75	12.1	115.2	196
0291 029	10 x 2 x 0,75	13.7	144.0	239
0291 030	12 x 2 x 0,75	14.6	172.8	284
0291 031	16 x 2 x 0,75	16.5	230.4	364
0291 032	18 x 2 x 0,75	17.3	259.2	403
0291 033	20 x 2 x 0,75	18.4	288.0	452
0291 034	24 x 2 x 0,75	19.9	345.6	530
0291 035	25 x 2 x 0,75	20.2	360.0	549
0291 036	27 x 2 x 0,75	20.9	388.8	587

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0291 006	2 x 2 x 1,0	8.2	38.4	81
0291 037	3 x 2 x 1,0	8.7	57.6	97
0291 038	4 x 2 x 1,0	10.0	76.8	133
0291 039	5 x 2 x 1,0	11.0	96.0	160
0291 040	7 x 2 x 1,0	12.3	134.4	215
0291 041	10 x 2 x 1,0	15.1	192.0	303
0291 007	12 x 2 x 1,0	15.8	230.4	352
0291 042	14 x 2 x 1,0	16.9	268.8	402
0291 043	16 x 2 x 1,0	17.9	307.2	453
0291 044	18 x 2 x 1,0	19.0	345.6	512
0291 045	20 x 2 x 1,0	19.9	384.0	562
0291 046	24 x 2 x 1,0	21.6	460.8	661
0291 047	2 x 2 x 1,5	9.2	57.6	103
0291 048	3 x 2 x 1,5	10.1	86.4	138
0291 049	4 x 2 x 1,5	11.1	115.2	173
0291 050	5 x 2 x 1,5	12.5	144.0	216
0291 051	7 x 2 x 1,5	13.6	201.6	284
0291 052	10 x 2 x 1,5	16.8	288.0	402
0291 053	12 x 2 x 1,5	17.6	345.6	468
0291 054	14 x 2 x 1,5	19.0	403.2	547
0291 055	16 x 2 x 1,5	20.2	460.8	617
0291 056	20 x 2 x 1,5	22.3	576.0	754
0291 057	2 x 2 x 2,5	11.0	96.0	158
0291 058	3 x 2 x 2,5	11.7	144.0	198
0291 059	4 x 2 x 2,5	13.1	192.0	258
0291 060	5 x 2 x 2,5	14.7	240.0	321
0291 061	7 x 2 x 2,5	16.0	336.0	426
0291 062	10 x 2 x 2,5	19.7	480.0	602
0291 005	12 x 2 x 2,5	20.7	576.0	704
0291 063	14 x 2 x 2,5	22.2	672.0	810
0291 064	16 x 2 x 2,5	23.7	768.0	924

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekw-Nr 300/500 V TECHNOKONTROL YKSLYekwżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLYekw-Nr 300/500 V** and **TECHNOKONTROL YKSLYekwżo-Nr 300/500 V** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYekwżo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-Nr-O 300/500 V** and **TECHNOKONTROL YKSLYekwżo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw-Nr 300/500 V** and **TECHNOKONTROL YnKSLYekwżo-Nr 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YvKSLYekw-Nr 300/500 V** and **TECHNOKONTROL YvKSLYekwżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.



## TECHNOKONTROL YKSLYekw-Nr 300/500 V TECHNOKONTROL YKSLYekwżo-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0318 005	2 x 0,5	4,8	12,0	32
0318 006	3 x 0,5	5,1	16,8	39
0318 064	4 x 0,5	5,5	21,6	47
0318 036	5 x 0,5	6,0	26,4	56
0318 100	6 x 0,5	6,5	31,2	67
0318 007	7 x 0,5	6,5	36,0	69
0318 066	8 x 0,5	7,0	40,8	80
0318 085	10 x 0,5	8,1	50,4	94
0318 088	12 x 0,5	8,4	60,0	108
0318 097	14 x 0,5	8,8	69,6	122
0318 067	16 x 0,5	9,3	79,2	138
0318 058	20 x 0,5	10,7	98,4	182
0318 101	21 x 0,5	10,7	103,2	185
0318 068	25 x 0,5	12,3	122,4	228
0318 102	32 x 0,5	13,2	156,0	274
0318 103	37 x 0,5	13,7	180,0	303
0318 106	42 x 0,5	14,9	204,0	356
0318 107	50 x 0,5	16,2	242,4	412
0318 108	56 x 0,5	16,7	271,2	447
0318 009	2 x 0,75	5,2	19,2	40
0318 010	3 x 0,75	5,4	26,4	49
0318 070	4 x 0,75	5,9	33,6	59
0318 011	5 x 0,75	6,4	40,8	72
0318 109	6 x 0,75	7,0	48,0	86
0318 039	7 x 0,75	7,0	55,2	90
0318 051	8 x 0,75	7,5	62,4	103
0318 003	10 x 0,75	8,8	76,8	122
0318 012	12 x 0,75	9,1	91,2	140
0318 004	14 x 0,75	10,0	105,6	170
0318 047	16 x 0,75	10,5	120,0	191
0318 053	20 x 0,75	11,6	148,8	236
0318 014	21 x 0,75	11,6	156,0	240

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0318 015	25 x 0,75	13,4	184,8	295
0318 093	32 x 0,75	14,6	235,2	365
0318 060	37 x 0,75	15,1	271,2	404
0318 110	42 x 0,75	16,2	307,2	465
0318 111	50 x 0,75	17,7	364,8	539
0318 016	2 x 1,0	5,5	24,0	46
0318 017	3 x 1,0	5,8	33,6	58
0318 018	4 x 1,0	6,4	43,2	71
0318 001	5 x 1,0	6,9	52,8	87
0318 069	6 x 1,0	7,5	62,4	103
0318 019	7 x 1,0	7,5	72,0	109
0318 061	8 x 1,0	8,1	81,6	126
0318 020	10 x 1,0	9,9	100,8	160
0318 021	12 x 1,0	10,3	120,0	184
0318 022	14 x 1,0	10,8	139,2	208
0318 037	16 x 1,0	11,3	158,4	236
0318 079	20 x 1,0	12,8	196,8	299
0318 112	21 x 1,0	12,8	206,4	304
0318 046	25 x 1,0	14,7	244,8	373
0318 077	32 x 1,0	15,8	312,0	453
0318 113	37 x 1,0	16,4	360,0	504
0318 114	42 x 1,0	17,6	408,0	580
0318 115	50 x 1,0	19,4	484,8	684
0318 026	2 x 1,5	6,1	36,0	58
0318 027	3 x 1,5	6,4	50,4	75
0318 028	4 x 1,5	7,0	64,8	93
0318 029	5 x 1,5	7,7	79,2	114
0318 073	6 x 1,5	8,3	93,6	136
0318 030	7 x 1,5	8,3	108,0	145
0318 055	8 x 1,5	9,0	122,4	167
0318 031	10 x 1,5	11,0	151,2	211

**TECHNOKONTROL YKSLYekw-Nr 300/500 V**  
**TECHNOKONTROL YKSLYekwżo-Nr 300/500 V**

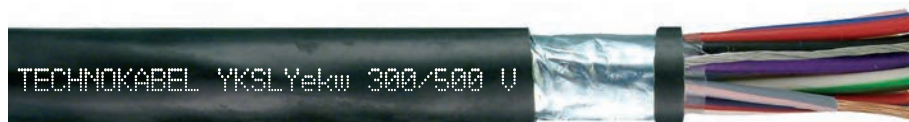
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0318 002	12 x 1,5	11.4	180.0	243
0318 032	14 x 1,5	12.2	208.8	283
0318 044	16 x 1,5	12.8	237.6	320
0318 050	20 x 1,5	14.4	295.2	405
0318 045	21 x 1,5	14.4	309.6	414
0318 116	25 x 1,5	16.3	367.2	495
0318 082	32 x 1,5	17.6	468.0	607
0318 074	37 x 1,5	18.5	540.0	687
0318 117	42 x 1,5	19.9	612.0	790
0318 042	50 x 1,5	21.7	727.2	921
0318 035	2 x 2,5	6.9	55.2	79
0318 062	3 x 2,5	7.3	79.2	104
0318 054	4 x 2,5	8.0	103.2	131
0318 059	5 x 2,5	8.8	127.2	163
0318 118	6 x 2,5	10.0	151.2	205
0318 094	7 x 2,5	10.0	175.2	219
0318 104	8 x 2,5	10.9	199.2	254
0318 081	10 x 2,5	12.9	247.2	311
0318 078	12 x 2,5	13.4	295.2	361
0318 049	14 x 2,5	14.3	343.2	420
0318 119	16 x 2,5	15.0	391.2	477
0318 120	2 x 4,0	8.3	86.4	114
0318 121	3 x 4,0	8.8	124.8	153
0318 105	4 x 4,0	10.1	163.2	205
0318 122	5 x 4,0	11.1	201.6	254
0318 123	7 x 4,0	12.3	278.4	334

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0318 124	3 x 6,0	10.6	182.4	227
0318 125	4 x 6,0	11.7	240.0	289
0318 126	5 x 6,0	13.0	297.6	369
0318 127	7 x 6,0	14.5	412.8	486
0318 128	3 x 10,0	13.4	297.6	373
0318 129	4 x 10,0	15.0	393.6	488
0318 130	5 x 10,0	16.5	489.6	613
0318 131	7 x 10,0	18.1	681.6	804
0318 132	3 x 16,0	16.0	475.2	565
0318 133	4 x 16,0	17.6	628.8	730
0318 134	5 x 16,0	19.6	782.4	931
0318 135	7 x 16,0	21.5	1089.6	1229
0318 136	3 x 25,0	18.7	734.4	812
0318 137	4 x 25,0	20.7	974.4	1055
0318 138	5 x 25,0	23.0	1214.4	1344
0318 139	3 x 35,0	22.0	1022.4	1115
0318 140	4 x 35,0	24.6	1358.4	1466
0318 141	5 x 35,0	27.2	1694.4	1859
0318 142	3 x 50,0	27.6	1464.0	1636
0318 143	4 x 50,0	30.8	1944.0	2151
0318 144	5 x 50,0	34.1	2424.0	2736

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekw 300/500 V TECHNOKONTROL YKSLYekwżo 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLYekw 300/500 V** and **TECHNOKONTROL YKSLYekwżo 300/500 V** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYekwżo 300/500 V** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-O 300/500 V** and **TECHNOKONTROL YKSLYekwżo-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw 300/500 V** and **TECHNOKONTROL YnKSLYekwżo 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YvKSLYekw 300/500 V** and **TECHNOKONTROL YvKSLYekwżo 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLYekw 300/500 V TECHNOKONTROL YKSLYekwżo 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0313 003	2 x 0,5	4.8	12.0	32
0313 004	3 x 0,5	5.1	16.8	39
0313 045	4 x 0,5	5.5	21.6	47
0313 038	5 x 0,5	6.0	26.4	56
0313 046	6 x 0,5	6.5	31.2	67
0313 007	7 x 0,5	6.5	36.0	69
0313 032	8 x 0,5	7.0	40.8	80
0313 006	10 x 0,5	8.1	50.4	94
0313 042	12 x 0,5	8.4	60.0	108
0313 043	14 x 0,5	8.8	69.6	122
0313 047	16 x 0,5	9.3	79.2	138
0313 048	20 x 0,5	10.7	98.4	182
0313 049	21 x 0,5	10.7	103.2	185
0313 050	25 x 0,5	12.3	122.4	228
0313 051	32 x 0,5	13.2	156.0	274
0313 052	37 x 0,5	13.7	180.0	303
0313 053	42 x 0,5	14.9	204.0	356
0313 054	50 x 0,5	16.2	242.4	412
0313 055	56 x 0,5	16.7	271.2	447
0313 008	2 x 0,75	5.2	19.2	40
0313 056	3 x 0,75	5.4	26.4	49
0313 057	4 x 0,75	5.9	33.6	59
0313 009	5 x 0,75	6.4	40.8	72
0313 058	6 x 0,75	7.0	48.0	86
0313 059	7 x 0,75	7.0	55.2	90
0313 060	8 x 0,75	7.5	62.4	103
0313 001	10 x 0,75	8.8	76.8	122
0313 010	12 x 0,75	9.1	91.2	140
0313 002	14 x 0,75	10.0	105.6	170
0313 061	16 x 0,75	10.5	120.0	191
0313 062	20 x 0,75	11.6	148.8	236
0313 063	21 x 0,75	11.6	156.0	240

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0313 064	25 x 0,75	13.4	184.8	295
0313 065	32 x 0,75	14.6	235.2	365
0313 066	37 x 0,75	15.1	271.2	404
0313 067	42 x 0,75	16.2	307.2	465
0313 068	50 x 0,75	17.7	364.8	539
0313 011	2 x 1,0	5.5	24.0	46
0313 014	3 x 1,0	5.8	33.6	58
0313 015	4 x 1,0	6.4	43.2	71
0313 039	5 x 1,0	6.9	52.8	87
0313 069	6 x 1,0	7.5	62.4	103
0313 028	7 x 1,0	7.5	72.0	109
0313 070	8 x 1,0	8.1	81.6	126
0313 016	10 x 1,0	9.9	100.8	160
0313 071	12 x 1,0	10.3	120.0	184
0313 072	14 x 1,0	10.8	139.2	208
0313 073	16 x 1,0	11.3	158.4	236
0313 031	20 x 1,0	12.8	196.8	299
0313 074	21 x 1,0	12.8	206.4	304
0313 075	25 x 1,0	14.7	244.8	373
0313 076	32 x 1,0	15.8	312.0	453
0313 077	37 x 1,0	16.4	360.0	504
0313 078	42 x 1,0	17.6	408.0	580
0313 079	50 x 1,0	19.4	484.8	684
0313 018	2 x 1,5	6.1	36.0	58
0313 019	3 x 1,5	6.4	50.4	75
0313 021	4 x 1,5	7.0	64.8	93
0313 080	5 x 1,5	7.7	79.2	114
0313 081	6 x 1,5	8.3	93.6	136
0313 022	7 x 1,5	8.3	108.0	145
0313 082	8 x 1,5	9.0	122.4	167
0313 023	10 x 1,5	11.0	151.2	211

**TECHNOKONTROL YKSLYekw 300/500 V**  
**TECHNOKONTROL YKSLYekwżo 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0313 027	12 x 1,5	11.4	180.0	243
0313 083	14 x 1,5	12.2	208.8	283
0313 084	16 x 1,5	12.8	237.6	320
0313 085	20 x 1,5	14.4	295.2	405
0313 086	21 x 1,5	14.4	309.6	414
0313 044	25 x 1,5	16.3	367.2	495
0313 087	32 x 1,5	17.6	468.0	607
0313 088	37 x 1,5	18.5	540.0	687
0313 089	42 x 1,5	19.9	612.0	790
0313 090	50 x 1,5	21.7	727.2	921
0313 029	2 x 2,5	6.9	55.2	79
0313 091	3 x 2,5	7.3	79.2	104
0313 026	4 x 2,5	8.0	103.2	131
0313 092	5 x 2,5	8.8	127.2	163
0313 093	6 x 2,5	10.0	151.2	205
0313 094	7 x 2,5	10.0	175.2	219
0313 095	8 x 2,5	10.9	199.2	254
0313 096	10 x 2,5	12.9	247.2	311
0313 097	12 x 2,5	13.4	295.2	361
0313 098	14 x 2,5	14.3	343.2	420
0313 099	16 x 2,5	15.0	391.2	477
0313 100	2 x 4,0	8.3	86.4	114
0313 101	3 x 4,0	8.8	124.8	153
0313 102	4 x 4,0	10.1	163.2	205
0313 103	5 x 4,0	11.1	201.6	254
0313 104	7 x 4,0	12.3	278.4	334

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0313 105	3 x 6,0	10.6	182.4	227
0313 106	4 x 6,0	11.7	240.0	289
0313 107	5 x 6,0	13.0	297.6	369
0313 108	7 x 6,0	14.5	412.8	486
0313 109	3 x 10,0	13.4	297.6	373
0313 110	4 x 10,0	15.0	393.6	488
0313 111	5 x 10,0	16.5	489.6	613
0313 112	7 x 10,0	18.1	681.6	804
0313 113	3 x 16,0	16.0	475.2	565
0313 114	4 x 16,0	17.6	628.8	730
0313 115	5 x 16,0	19.6	782.4	931
0313 116	7 x 16,0	21.5	1089.6	1229
0313 117	3 x 25,0	18.7	734.4	812
0313 118	4 x 25,0	20.7	974.4	1055
0313 119	5 x 25,0	23.0	1214.4	1344
0313 120	3 x 35,0	22.0	1022.4	1115
0313 121	4 x 35,0	24.6	1358.4	1466
0313 122	5 x 35,0	27.2	1694.4	1859
0313 123	3 x 50,0	27.6	1464.0	1636
0313 124	4 x 50,0	30.8	1944.0	2151
0313 125	5 x 50,0	34.1	2424.0	2736

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekw-P 300/500 V TECHNOKONTROL YKSLYekw-P-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLYekw-P 300/500 V** and **TECHNOKONTROL YKSLYekw-P-Nr 300/500 V** are multipair flexible, overall shielded cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YKSLYekw-P 300/500 V** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLYekw-P-Nr 300/500 V** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-P-O 300/500 V** and **TECHNOKONTROL YKSLYekw-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw-P 300/500 V** and **TECHNOKONTROL YnKSLYekw-P-Nr 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YvKSLYekw-P 300/500 V** and **TECHNOKONTROL YvKSLYekw-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLYekw-P 300/500 V**  
**TECHNOKONTROL YKSLYekw-P-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-17

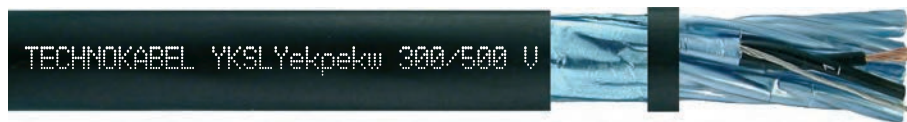
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0325 002	2 x 2 x 0,5	7.1	21.6	58
0325 003	3 x 2 x 0,5	7.5	31.2	68
0325 004	4 x 2 x 0,5	8.3	40.8	83
0325 005	5 x 2 x 0,5	9.1	50.4	99
0325 006	6 x 2 x 0,5	10.3	60.0	125
0325 007	7 x 2 x 0,5	10.3	69.6	138
0325 008	8 x 2 x 0,5	11.0	79.2	154
0325 009	10 x 2 x 0,5	12.7	98.4	192
0325 010	12 x 2 x 0,5	13.2	117.6	220
0325 037	14 x 2 x 0,5	14.3	136.8	257
0325 012	16 x 2 x 0,5	15.2	156.0	288
0325 013	18 x 2 x 0,5	15.9	175.2	317
0325 048	20 x 2 x 0,5	16.7	194.4	347
0325 014	24 x 2 x 0,5	18.1	232.8	406
0325 051	25 x 2 x 0,5	18.6	242.4	429
0325 052	30 x 2 x 0,5	20.1	290.4	502
0325 053	31 x 2 x 0,5	20.4	300.0	517
0325 054	33 x 2 x 0,5	21.0	319.2	546
0325 015	2 x 2 x 0,75	7.7	33.6	76
0325 0149	3 x 2 x 0,75	8.2	48.0	86
0325 032	4 x 2 x 0,75	9.0	62.4	107
0325 047	5 x 2 x 0,75	10.3	76.8	138
0325 033	7 x 2 x 0,75	11.2	105.6	176
0325 041	10 x 2 x 0,75	13.8	148.8	247
0325 034	12 x 2 x 0,75	14.7	177.6	292
0325 039	14 x 2 x 0,75	15.7	206.4	333
0325 044	16 x 2 x 0,75	16.6	235.2	373
0325 055	24 x 2 x 0,75	20.0	350.4	539
0325 056	27 x 2 x 0,75	21.0	393.6	598
0325 001	2 x 2 x 1,0	8.3	43.2	88

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0325 016	3 x 2 x 1,0	8.8	62.4	104
0325 017	4 x 2 x 1,0	10.1	81.6	140
0325 018	5 x 2 x 1,0	11.1	100.8	167
0325 038	7 x 2 x 1,0	12.4	139.2	223
0325 020	10 x 2 x 1,0	15.2	196.8	312
0325 036	12 x 2 x 1,0	15.9	235.2	360
0325 021	14 x 2 x 1,0	17.0	273.6	411
0325 040	16 x 2 x 1,0	18.0	312.0	462
0325 023	24 x 2 x 1,0	21.7	465.6	672
0325 025	2 x 2 x 1,5	9.3	64.8	112
0325 045	3 x 2 x 1,5	10.2	93.6	147
0325 030	4 x 2 x 1,5	11.2	122.4	183
	5 x 2 x 1,5	12.6	151.2	226
0325 026	7 x 2 x 1,5	13.7	208.8	294
0325 031	10 x 2 x 1,5	16.9	295.2	413
0325 057	12 x 2 x 1,5	17.7	352.8	480
0325 058	14 x 2 x 1,5	19.1	410.4	558
0325 059	16 x 2 x 1,5	20.3	468.0	629
0325 060	20 x 2 x 1,5	22.6	583.2	778
0325 028	2 x 2 x 2,5	11.1	103.2	167
0325 061	3 x 2 x 2,5	12.0	151.2	213
0325 062	4 x 2 x 2,5	13.2	199.2	268
0325 063	5 x 2 x 2,5	14.8	247.2	331
0325 064	7 x 2 x 2,5	16.1	343.2	436
0325 065	10 x 2 x 2,5	19.8	487.2	613
0325 066	12 x 2 x 2,5	20.8	583.2	717
0325 067	14 x 2 x 2,5	22.3	679.2	823
0325 068	16 x 2 x 2,5	23.8	775.2	937

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekpekW 300/500 V TECHNOKONTROL YKSLYekpekW-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLYekpekW 300/500 V** and **TECHNOKONTROL YKSLYekpekW-Nr 300/500 V** are multipair, pair and overall shielded cables intended for control and protection systems or power supply, all in power engineering.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable. The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YKSLYekpekW 300/500 V** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLYekpekW-Nr 300/500 V** cable,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YvKSLYekpekW 300/500 V** and **TECHNOKONTROL YvKSLYekpekW-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLYekpekW-O 300/500 V** and **TECHNOKONTROL YKSLYekpekW-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekpekW 300/500 V** and **TECHNOKONTROL YnKSLYekpekW-Nr 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.



**TECHNOKONTROL YKSLYekpekW 300/500 V**  
**TECHNOKONTROL YKSLYekpekW-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-17

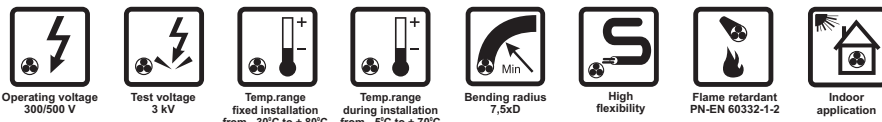
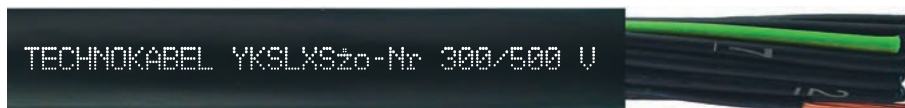
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0303 005	2 x 2 x 0,5	8.4	26.7	78,5
0303 035	3 x 2 x 0,5	8.9	38.8	101,0
0303 007	4 x 2 x 0,5	9.7	50.9	125,5
0303 008	5 x 2 x 0,5	11.1	63.0	160,0
0303 025	6 x 2 x 0,5	12.0	75.2	186,0
0303 009	8 x 2 x 0,5	12.8	99.4	230,5
0303 036	10 x 2 x 0,5	14.7	123.7	287,5
0303 010	12 x 2 x 0,5	15.4	147.0	333,0
0303 032	14 x 2 x 0,5	16.4	170.4	379,5
0303 011	16 x 2 x 0,5	17.3	196.5	426,5
0303 037	18 x 2 x 0,5	18.2	220.7	473,5
0303 012	24 x 2 x 0,5	21.1	293.5	629,5
0303 001	2 x 2 x 0,75	9.3	43.6	101,0
0303 002	3 x 2 x 0,75	10.2	63.0	142,0
0303 021	4 x 2 x 0,75	11.2	82.5	175,5
0303 038	5 x 2 x 0,75	12.3	101.9	210,5
0303 024	8 x 2 x 0,75	14.4	160.1	313,5
0303 033	10 x 2 x 0,75	16.4	198.9	382,5
0303 039	12 x 2 x 0,75	17.1	237.8	445,0
0303 040	16 x 2 x 0,75	19.8	315.4	591,5

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0303 003	2 x 2 x 1,0	9.5	53.4	112,0
0303 014	3 x 2 x 1,0	10.6	77.7	159,5
0303 022	4 x 2 x 1,0	11.6	102.0	199,0
0303 004	5 x 2 x 1,0	12.8	126.3	239,5
0303 016	8 x 2 x 1,0	15.0	199.2	359,5
0303 020	10 x 2 x 1,0	17.0	247.8	439,0
0303 017	12 x 2 x 1,0	17.8	296.4	513,0
0303 023	2 x 2 x 1,5	11.8	78.7	166,5
0303 027	3 x 2 x 1,5	12.3	114.4	219,0
0303 018	4 x 2 x 1,5	13.7	150.2	276,5
0303 019	5 x 2 x 1,5	15.3	185.9	341,5
0303 041	8 x 2 x 1,5	17.7	293.1	506,0
0303 042	10 x 2 x 1,5	20.6	364.6	640,0
0303 043	2 x 2 x 2,5	13.1	116.9	216,0
0303 044	3 x 2 x 2,5	13.8	171.7	292,0
0303 045	4 x 2 x 2,5	15.5	226.5	378,0
0303 034	5 x 2 x 2,5	17.1	281.4	459,0
0303 046	8 x 2 x 2,5	20.3	447.9	708,5
0303 047	10 x 2 x 2,5	23.6	555.6	892,0

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXS-Nr 300/500 V TECHNOKONTROL YKSLXSžo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXS-Nr 300/500 V** and **TECHNOKONTROL YKSLXSžo-Nr 300/500 V** are cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **YKSLXSžo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXS-Nr-O 300/500 V** and **TECHNOKONTROL YKSLXSžo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXS-Nr 300/500 V** and **TECHNOKONTROL HKSLXSžo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXS-Nr 300/500 V** and **TECHNOKONTROL YvKSLXSžo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLXS-Nr 300/500 V**  
**TECHNOKONTROL YKSLXSžo-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Capacitance between conductors at 1 kHz, appr.	nF/km	60	60	60	70	70	80
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386
Capacitance between conductors at 1 kHz, appr.	nF/km	80	80	80	80	80	80

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Conductor temperature limit in work conditions at short-circuit	+ 90°C + 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0895 004	2 x 0,5	5.1	9.6	29
0895 005	3 x 0,5	5.4	14.4	36
0895 006	4 x 0,5	5.9	19.2	44
0895 007	5 x 0,5	6.4	24.0	54
0895 008	6 x 0,5	7.0	28.8	65
0895 009	7 x 0,5	7.0	33.6	66
0895 010	10 x 0,5	8.8	48.0	91
0895 011	12 x 0,5	9.1	57.6	104
0895 012	16 x 0,5	10.5	76.8	144
0895 013	20 x 0,5	11.6	96.0	179
0895 014	25 x 0,5	13.4	120.0	225
0895 015	32 x 0,5	14.6	153.6	277
0895 016	37 x 0,5	15.2	177.6	304
0895 017	44 x 0,5	17.0	211.2	356
0895 018	2 x 0,75	5.5	14.4	35
0895 019	3 x 0,75	5.8	21.6	44
0895 020	4 x 0,75	6.3	28.8	54
0895 021	5 x 0,75	6.9	36.0	67
0895 022	6 x 0,75	7.5	43.2	80
0895 023	7 x 0,75	7.5	50.4	83
0895 024	10 x 0,75	9.9	72.0	125
0895 025	12 x 0,75	10.2	86.4	142
0895 026	16 x 0,75	11.3	115.2	183
0895 027	20 x 0,75	12.8	144.0	235
0895 028	25 x 0,75	14.7	180.0	294
0895 029	32 x 0,75	15.8	230.4	354
0895 003	34 x 0,75	16.4	244.8	382
0895 001	2 x 1,0	5.8	19.2	40
0895 030	3 x 1,0	6.2	28.8	52
0895 031	4 x 1,0	6.7	38.4	65
0895 032	5 x 1,0	7.4	48.0	82
0895 033	6 x 1,0	8.0	57.6	98

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0895 034	7 x 1,0	8.0	67.2	102
0895 035	10 x 1,0	10.6	96.0	152
0895 036	12 x 1,0	11.0	115.2	175
0895 037	16 x 1,0	12.4	153.6	233
0895 038	20 x 1,0	13.7	192.0	289
0895 039	25 x 1,0	15.8	240.0	363
0895 040	2 x 1,5	6.4	28.8	51
0895 041	3 x 1,5	6.7	43.2	68
0895 042	4 x 1,5	7.4	57.6	85
0895 002	5 x 1,5	8.1	72.0	107
0895 043	6 x 1,5	8.8	86.4	128
0895 044	7 x 1,5	8.8	100.8	135
0895 045	10 x 1,5	11.7	144.0	201
0895 046	12 x 1,5	12.3	172.8	239
0895 047	16 x 1,5	13.7	230.4	310
0895 048	20 x 1,5	15.4	288.0	395
0895 049	25 x 1,5	17.5	360.0	484
0895 050	2 x 2,5	7.2	48.0	71
0895 051	3 x 2,5	7.7	72.0	96
0895 052	4 x 2,5	8.4	96.0	122
0895 053	5 x 2,5	9.3	120.0	154
0895 054	6 x 2,5	10.5	144.0	197
0895 055	7 x 2,5	10.5	168.0	209
0895 056	10 x 2,5	13.6	240.0	300
0895 057	12 x 2,5	14.3	288.0	356
0895 058	16 x 2,5	15.9	384.0	464
0895 059	20 x 2,5	17.6	480.0	579
0895 060	2 x 4,0	8.2	76.8	99
0895 061	3 x 4,0	8.7	115.2	136
0895 062	4 x 4,0	10.0	153.6	185
0895 063	5 x 4,0	11.0	192.0	232

**TECHNOKONTROL YKSLXS-Nr 300/500 V**  
**TECHNOKONTROL YKSLXSžo-Nr 300/500 V**

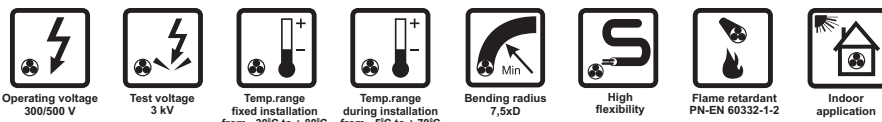
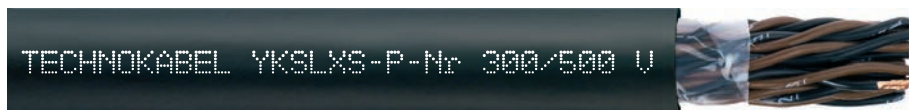
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0895 064	7 x 4,0	12.2	268.8	307
0895 065	3 x 6,0	10.5	172.8	216
0895 066	4 x 6,0	11.6	230.4	278
0895 067	5 x 6,0	12.9	288.0	357
0895 068	7 x 6,0	14.4	403.2	474
0895 069	3 x 10,0	13.3	288.0	361
0895 070	4 x 10,0	14.9	384.0	475
0895 071	5 x 10,0	16.4	480.0	600
0895 072	7 x 10,0	18.0	672.0	790
0895 073	3 x 16,0	15.9	460.8	549
0895 074	4 x 16,0	17.5	614.4	713

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0895 075	5 x 16,0	19.5	768.0	913
0895 076	7 x 16,0	21.4	1075.2	1211
0895 077	3 x 25,0	18.6	720.0	795
0895 078	4 x 25,0	20.6	960.0	1036
0895 079	5 x 25,0	22.9	1200.0	1325
0895 080	3 x 35,0	21.9	1008.0	1097
0895 081	4 x 35,0	24.5	1344.0	1447
0895 082	5 x 35,0	27.1	1680.0	1839
0895 083	3 x 50,0	27.5	1440.0	1608
0895 084	4 x 50,0	30.5	1920.0	2107
0895 085	5 x 50,0	34.0	2400.0	2707

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXS-P-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXS-P-Nr 300/500 V** are multipair cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) - insulation identification of pairs: black and brown insulation and white pair numbers printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXS-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXS-P-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXS-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLXS-P-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	60	65	65	70	75

Operating voltage Uo/U	300/500 V
Voltage test	3.0 kV rms
Insulation resistance, minimum	100 MΩ·km
Inductance, approximate	0.7 mH/km
Conductor temperature limit in work conditions at short-circuit	+ 90°C + 250°C

Operating temperature range for fixed installation for movable installation	from - 30 to + 80°C from - 5 to + 70°C
Minimum bending radius	7.5 x cable diameter
Cable combustibility	flame retardant
Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1344 003	2 x 2 x 0,5	7.7	19.2	60
1344 004	3 x 2 x 0,5	8.2	28.8	65
1344 005	4 x 2 x 0,5	9.0	38.4	80
1344 006	5 x 2 x 0,5	10.3	48.0	106
1344 007	6 x 2 x 0,5	11.2	57.6	123
1344 008	8 x 2 x 0,5	12.2	76.8	157
1344 009	10 x 2 x 0,5	13.8	96.0	190
1344 010	12 x 2 x 0,5	14.7	115.2	225
1344 011	16 x 2 x 0,5	16.6	153.6	285
1344 012	18 x 2 x 0,5	17.5	172.8	315
1344 013	24 x 2 x 0,5	20.1	230.4	412
1344 014	27 x 2 x 0,5	21.1	259.2	455
1344 015	30 x 2 x 0,5	22.2	288.0	498
1344 016	31 x 2 x 0,5	22.7	297.6	524
1344 017	33 x 2 x 0,5	23.3	316.8	552
1344 018	2 x 2 x 0,75	8.3	28.8	71
1344 019	3 x 2 x 0,75	8.8	43.2	81
1344 020	4 x 2 x 0,75	10.1	57.6	111
1344 021	5 x 2 x 0,75	11.1	72.0	132
1344 022	8 x 2 x 0,75	13.2	115.2	197
1344 023	10 x 2 x 0,75	15.2	144.0	248
1344 024	12 x 2 x 0,75	15.9	172.8	285
1344 025	16 x 2 x 0,75	18.0	230.4	363
1344 026	18 x 2 x 0,75	19.2	259.2	412
1344 027	20 x 2 x 0,75	20.1	288.0	451
1344 028	25 x 2 x 0,75	22.2	360.0	547
1344 029	27 x 2 x 0,75	23.2	388.8	596
1344 030	30 x 2 x 0,75	24.3	432.0	652
1344 002	2 x 2 x 1,0	8.9	38.4	83
1344 031	3 x 2 x 1,0	9.9	57.6	108

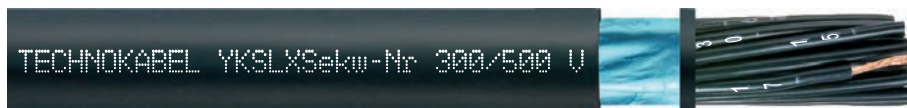
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1344 002	4 x 2 x 1,0	10.9	76.8	134
1344 032	5 x 2 x 1,0	12.2	96.0	167
1344 033	8 x 2 x 1,0	14.4	153.6	250
1344 034	10 x 2 x 1,0	16.3	192.0	304
1344 035	12 x 2 x 1,0	17.1	230.4	351
1344 036	14 x 2 x 1,0	18.5	268.8	410
1344 037	16 x 2 x 1,0	19.6	307.2	460
1344 038	20 x 2 x 1,0	21.7	384.0	559
1344 039	24 x 2 x 1,0	23.7	460.8	667
1344 040	2 x 2 x 1,5	10.2	57.6	118
1344 041	3 x 2 x 1,5	10.9	86.4	140
1344 042	4 x 2 x 1,5	12.2	115.2	181
1344 043	5 x 2 x 1,5	13.4	144.0	218
1344 044	6 x 2 x 1,5	14.8	172.8	262
1344 045	8 x 2 x 1,5	15.8	230.4	329
1344 046	10 x 2 x 1,5	18.1	288.0	403
1344 047	12 x 2 x 1,5	19.1	345.6	478
1344 048	16 x 2 x 1,5	21.7	460.8	616
1344 049	20 x 2 x 1,5	24.2	576.0	762
1344 050	2 x 2 x 2,5	11.7	96.0	164
1344 051	3 x 2 x 2,5	12.6	144.0	205
1344 052	4 x 2 x 2,5	13.9	192.0	259
1344 053	5 x 2 x 2,5	15.6	240.0	323
1344 054	7 x 2 x 2,5	17.0	336.0	426
1344 055	10 x 2 x 2,5	21.0	480.0	602
1344 056	12 x 2 x 2,5	22.0	576.0	703
1344 057	14 x 2 x 2,5	23.8	672.0	817
1344 058	16 x 2 x 2,5	25.3	768.0	922

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXSekw-Nr 300/500 V TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXSekw-Nr 300/500 V** and **TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V** are overall shielded cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **YKSLXSekwżo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXSekw-Nr-O 300/500 V** and **TECHNOKONTROL YKSLXSekwżo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXSekw-Nr 300/500 V** and **TECHNOKONTROL HKSLXSekwżo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXSekw-Nr 300/500 V** and **TECHNOKONTROL YvKSLXSekwżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLXSekw-Nr 300/500 V**  
**TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Capacitance between conductors at 1 kHz, appr.	nF/km	60	60	60	70	70	80
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386
Capacitance between conductors at 1 kHz, appr.	nF/km	80	80	80	80	80	80

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 250°C		

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1094 010	2 x 0,5	5.2	12.0	33
1094 011	3 x 0,5	5.5	16.8	40
1094 012	4 x 0,5	6.0	21.6	48
1094 013	5 x 0,5	6.5	26.4	58
1094 014	6 x 0,5	7.1	31.2	69
1094 015	7 x 0,5	7.1	36.0	70
1094 016	10 x 0,5	8.9	50.4	95
1094 017	12 x 0,5	9.2	60.0	109
1094 018	16 x 0,5	10.6	79.2	149
1094 019	20 x 0,5	11.7	98.4	184
1094 020	25 x 0,5	13.5	122.4	231
1094 021	32 x 0,5	14.7	156.0	283
1094 022	37 x 0,5	15.3	180.0	310
1094 023	40 x 0,5	15.8	194.4	333
1094 007	2 x 0,75	5.6	19.2	40
1094 024	3 x 0,75	5.9	26.4	50
1094 025	4 x 0,75	6.4	33.6	60
1094 026	5 x 0,75	7.0	40.8	74
1094 027	6 x 0,75	7.6	48.0	87
1094 028	7 x 0,75	7.6	55.2	89
1094 029	10 x 0,75	10.0	76.8	132
1094 030	12 x 0,75	10.3	91.2	149
1094 031	16 x 0,75	11.4	120.0	190
1094 032	20 x 0,75	12.9	148.8	242
1094 033	25 x 0,75	14.8	184.8	302
1094 034	32 x 0,75	15.9	235.2	363
1094 035	34 x 0,75	16.5	249.6	391
1094 036	2 x 1,0	5.9	24.0	46
1094 037	3 x 1,0	6.3	33.6	59
1094 038	4 x 1,0	6.8	43.2	72
1094 039	5 x 1,0	7.5	52.8	88
1094 040	6 x 1,0	8.1	62.4	104
1094 041	7 x 1,0	8.1	72.0	108

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1094 042	10 x 1,0	10.7	100.8	159
1094 043	12 x 1,0	11.1	120.0	183
1094 001	16 x 1,0	12.5	158.4	240
1094 044	20 x 1,0	13.8	196.8	297
1094 045	25 x 1,0	15.9	244.8	371
1094 046	2 x 1,5	6.5	36.0	59
1094 008	3 x 1,5	6.8	50.4	76
1094 002	4 x 1,5	7.5	64.8	93
1094 005	5 x 1,5	8.2	79.2	115
1094 047	6 x 1,5	8.9	93.6	137
1094 004	7 x 1,5	8.9	108.0	144
1094 048	10 x 1,5	12.0	151.2	216
1094 049	12 x 1,5	12.4	180.0	249
1094 050	16 x 1,5	13.8	237.6	320
1094 051	20 x 1,5	15.5	295.2	405
1094 052	25 x 1,5	17.6	367.2	495
1094 009	2 x 2,5	7.3	55.2	80
1094 053	3 x 2,5	7.8	79.2	105
1094 054	4 x 2,5	8.5	103.2	131
1094 055	5 x 2,5	9.8	127.2	173
1094 056	6 x 2,5	10.6	151.2	206
1094 057	7 x 2,5	10.6	175.2	218
1094 058	10 x 2,5	13.7	247.2	310
1094 059	12 x 2,5	14.4	295.2	366
1094 060	14 x 2,5	15.1	343.2	417
1094 061	16 x 2,5	16.0	391.2	474
1094 062	4 x 4,0	10.1	163.2	196
1094 063	5 x 4,0	11.1	201.6	244
1094 064	7 x 4,0	12.3	278.4	319
1094 065	3 x 6,0	10.6	182.4	215
1094 066	4 x 6,0	11.7	240.0	274



**TECHNOKONTROL YKSLXSekw-Nr 300/500 V**  
**TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1094 067	5 x 6,0	13.0	297.6	350
1094 068	7 x 6,0	14.5	412.8	462
1094 069	3 x 10,0	13.4	297.6	355
1094 070	4 x 10,0	15.0	393.6	464
1094 071	5 x 10,0	16.5	489.6	582
1094 072	7 x 10,0	18.1	681.6	763
1094 073	3 x 16,0	16.0	475.2	537
1094 074	4 x 16,0	17.6	628.8	693
1094 075	5 x 16,0	19.6	782.4	884
1094 076	7 x 16,0	21.5	1089.6	1167

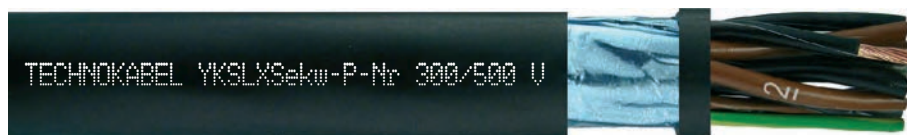
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1094 077	3 x 25,0	18.7	734.4	771
1094 078	4 x 25,0	20.7	974.4	1002
1094 079	5 x 25,0	23.0	1214.4	1276
1094 080	3 x 35,0	22.0	1022.4	1060
1094 081	4 x 35,0	24.6	1358.4	1392
1094 082	5 x 35,0	27.2	1694.4	1766
1094 083	3 x 50,0	27.6	1464.0	1554
1094 084	4 x 50,0	30.8	1944.0	2046
1094 085	5 x 50,0	34.1	2424.0	2600

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXSekw-P-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXSekw-P-Nr 300/500 V** are multipair overall shielded cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - identification of pairs: black and brown insulation and white pair numbers printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXSekw-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXSekw-P-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXSekw-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLXSekw-P-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	55	60	60	65	70

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 250°C		

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0715 006	2 x 2 x 0,5	7.8	21.6	64
0715 007	3 x 2 x 0,5	8.3	31.2	70
0715 008	4 x 2 x 0,5	9.1	40.8	85
0715 009	5 x 2 x 0,5	10.4	50.4	111
0715 010	6 x 2 x 0,5	11.3	60.0	128
0715 011	8 x 2 x 0,5	12.3	79.2	163
0715 012	10 x 2 x 0,5	13.9	98.4	196
0715 013	12 x 2 x 0,5	14.8	117.6	232
0715 014	16 x 2 x 0,5	16.7	156.0	292
0715 015	18 x 2 x 0,5	17.6	175.2	322
0715 016	24 x 2 x 0,5	20.2	232.8	420
0715 017	27 x 2 x 0,5	21.2	261.6	463
0715 018	30 x 2 x 0,5	22.3	290.4	507
0715 019	2 x 2 x 0,75	8.4	33.6	77
0715 020	3 x 2 x 0,75	8.9	48.0	87
0715 001	4 x 2 x 0,75	10.2	62.4	118
0715 021	5 x 2 x 0,75	11.2	76.8	139
0715 022	8 x 2 x 0,75	13.3	120.0	205
0715 023	10 x 2 x 0,75	15.3	148.8	256
0715 024	12 x 2 x 0,75	16.0	177.6	293
0715 025	16 x 2 x 0,75	18.1	235.2	372
0715 026	18 x 2 x 0,75	19.3	264.0	421
0715 002	2 x 2 x 1,0	9.0	43.2	89
0715 027	3 x 2 x 1,0	10.0	62.4	115

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0715 028	4 x 2 x 1,0	11.0	81.6	142
0715 029	5 x 2 x 1,0	12.3	100.8	175
0715 030	8 x 2 x 1,0	14.5	158.4	258
0715 031	10 x 2 x 1,0	16.4	196.8	312
0715 032	12 x 2 x 1,0	17.2	235.2	360
0715 033	14 x 2 x 1,0	18.6	273.6	419
0715 034	16 x 2 x 1,0	19.7	312.0	470
0715 004	2 x 2 x 1,5	10.3	64.8	127
0715 035	3 x 2 x 1,5	11.0	93.6	149
0715 036	4 x 2 x 1,5	12.3	122.4	191
0715 037	5 x 2 x 1,5	13.5	151.2	228
0715 005	8 x 2 x 1,5	15.9	237.6	340
0715 038	10 x 2 x 1,5	18.4	295.2	424
0715 039	12 x 2 x 1,5	19.2	352.8	490
0715 040	14 x 2 x 1,5	20.6	410.4	560
0715 041	2 x 2 x 2,5	12.0	103.2	179
0715 042	3 x 2 x 2,5	12.7	151.2	215
0715 043	4 x 2 x 2,5	14.2	199.2	277
0715 044	5 x 2 x 2,5	15.7	247.2	333
0715 045	7 x 2 x 2,5	17.1	343.2	437
0715 046	10 x 2 x 2,5	21.1	487.2	614
0715 047	12 x 2 x 2,5	22.1	583.2	715

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXSekpekwn-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXSekpekwn-Nr 300/500 V** are multipair, pair and overall shielded cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - identification of pairs: black and brown insulation and white pair numbers printed on it,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXSekpekwn-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXSekpekwn-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXSekpekwn-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLXSekpekwn-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	80	90	100	110	130
Operating voltage Uo/U	300/500 V	Operating temperature range for fixed installation		from - 30 to + 80°C		
Voltage test	3.0 kV rms	for movable installation		from - 5 to + 70°C		
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius		10 x cable diameter		
Inductance, approximate	0.7 mH/km	Cable combustibility		flame retardant		
Capacitance between conductor and screen, appr.	200 nF/km	Combustibility tests		PN-EN 60332-1-2 , IEC 60332-1-2		
Conductor temperature limit in work conditions	+ 90°C					
at short-circuit	+ 250°C					

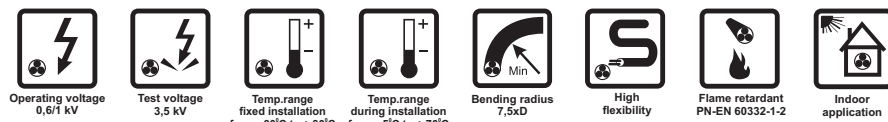
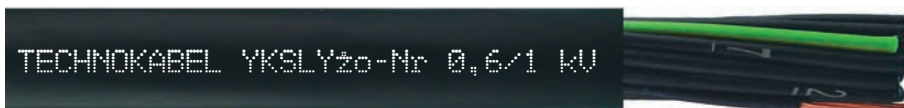
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0714 010	2 x 2 x 0,5	9.8	26.7	84,0
0714 011	3 x 2 x 0,5	10.8	38.8	117,0
0714 012	4 x 2 x 0,5	11.8	50.9	143,5
0714 013	5 x 2 x 0,5	12.9	63.0	170,5
0714 014	6 x 2 x 0,5	14.1	75.2	197,7
0714 015	8 x 2 x 0,5	15.2	99.4	251,8
0714 016	10 x 2 x 0,5	17.3	123.7	305,7
0714 017	12 x 2 x 0,5	18.1	147.9	352,5
0714 018	16 x 2 x 0,5	20.9	196.5	469,4
0714 019	18 x 2 x 0,5	21.9	220.7	519,1
0714 020	24 x 2 x 0,5	25.3	293.5	687,2
0714 001	2 x 2 x 0,75	11.1	43.6	118,0
0714 021	3 x 2 x 0,75	11.7	63.0	152,0
0714 004	4 x 2 x 0,75	12.9	82.5	188,0
0714 022	5 x 2 x 0,75	14.1	101.9	225,0
0714 023	8 x 2 x 0,75	16.6	160.1	336,0
0714 024	10 x 2 x 0,75	19.3	198.9	426,5
0714 006	12 x 2 x 0,75	20.2	237.8	493,5
0714 025	16 x 2 x 0,75	23.3	315.4	652,5

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0714 002	2 x 2 x 1,0	11.3	53.4	129,5
0714 026	3 x 2 x 1,0	12.1	77.7	170,0
0714 027	4 x 2 x 1,0	13.3	102.0	212,0
0714 028	5 x 2 x 1,0	14.8	126.3	260,5
0714 029	8 x 2 x 1,0	17.2	199.2	381,5
0714 030	10 x 2 x 1,0	20.0	247.8	483,5
0714 031	12 x 2 x 1,0	20.9	296.4	561,5
0714 003	2 x 2 x 1,5	12.4	78.7	163,5
0714 007	3 x 2 x 1,5	13.0	114.4	214,5
0714 005	4 x 2 x 1,5	14.7	150.2	277,0
0714 032	5 x 2 x 1,5	16.2	185.9	333,7
0714 033	8 x 2 x 1,5	19.2	293.1	510,7
0714 034	10 x 2 x 1,5	21.9	364.6	625,0
0714 008	2 x 2 x 2,5	13.3	116.9	211,5
0714 035	3 x 2 x 2,5	14.1	171.7	285,1
0714 009	4 x 2 x 2,5	15.7	226.5	369,6
0714 036	5 x 2 x 2,5	17.3	281.4	448,6
0714 037	7 x 2 x 2,5	19.3	445.9	614,5
0714 038	10 x 2 x 2,5	23.9	555.6	872,8

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YKSLY-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLYżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YKSLY-Nr 0,6/1 kV** and **TECHNOKONTROL YKSLYżo-Nr 0,6/1 kV** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYżo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YKSLY-Nr-O 0,6/1 kV** and **TECHNOKONTROL YKSLYżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY-Nr 0,6/1 kV** and **TECHNOKONTROL YnKSLYżo-Nr 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH-NR 0,6/1 kV** and **TECHNOKONTROL HKSLHżo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY-Nr 0,6/1 kV** and **TECHNOKONTROL YvKSLYżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSŁY-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSŁYżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0287 003	2 x 0,75	6.4	14.4	49
0287 051	3 x 0,75	6.8	21.6	62
0287 004	4 x 0,75	7.4	28.8	76
0287 075	5 x 0,75	8.0	36.0	94
0287 044	6 x 0,75	8.7	43.2	112
0287 050	7 x 0,75	8.7	50.4	116
0287 052	8 x 0,75	9.4	57.6	135
0287 037	10 x 0,75	11.2	72.0	165
0287 039	12 x 0,75	11.6	86.4	190
0287 056	14 x 0,75	12.4	100.8	222
0287 053	16 x 0,75	13.1	115.2	252
0287 071	20 x 0,75	14.7	144.0	320
0287 076	21 x 0,75	14.7	151.2	324
0287 077	25 x 0,75	16.6	180.0	390
0287 078	32 x 0,75	17.9	230.4	472
0287 038	37 x 0,75	19.0	266.4	541
0287 079	40 x 0,75	19.7	288.0	584
0287 080	42 x 0,75	20.4	302.4	625
0287 081	50 x 0,75	22.2	360.0	723
0287 082	56 x 0,75	23.3	403.2	808
0287 083	61 x 0,75	24.0	439.2	866
0287 084	65 x 0,75	24.7	468.0	921
0287 085	75 x 0,75	26.7	540.0	1044
0287 086	80 x 0,75	27.3	576.0	1104
0287 087	100 x 0,75	30.0	720.0	1368
0287 005	2 x 1,0	6.8	19.2	56
0287 006	3 x 1,0	7.2	28.8	72
0287 007	4 x 1,0	7.8	38.4	89
0287 008	5 x 1,0	8.5	48.0	110
0287 059	6 x 1,0	9.3	57.6	131
0287 028	7 x 1,0	9.3	67.2	137
0287 029	8 x 1,0	10.2	76.8	165

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0287 009	10 x 1,0	12.2	96.0	203
0287 045	12 x 1,0	12.5	115.2	232
0287 010	14 x 1,0	13.2	134.4	264
0287 041	16 x 1,0	13.9	153.6	300
0287 013	20 x 1,0	15.6	192.0	381
0287 074	21 x 1,0	15.6	201.6	387
0287 068	25 x 1,0	17.7	240.0	466
0287 088	32 x 1,0	19.5	307.2	588
0287 089	37 x 1,0	20.2	355.2	650
0287 090	40 x 1,0	21.0	384.0	703
0287 091	42 x 1,0	21.8	403.2	753
0287 092	50 x 1,0	24.2	480.0	897
0287 093	56 x 1,0	24.9	537.6	974
0287 094	61 x 1,0	25.6	585.6	1045
0287 095	65 x 1,0	26.4	624.0	1112
0287 096	75 x 1,0	28.5	720.0	1263
0287 097	80 x 1,0	29.1	768.0	1337
0287 098	100 x 1,0	32.3	960.0	1677
0287 015	2 x 1,5	7.3	28.8	68
0287 016	3 x 1,5	7.7	43.2	89
0287 017	4 x 1,5	8.5	57.6	111
0287 018	5 x 1,5	9.3	72.0	139
0287 069	6 x 1,5	10.3	86.4	171
0287 019	7 x 1,5	10.3	100.8	180
0287 043	8 x 1,5	11.1	115.2	210
0287 034	10 x 1,5	13.2	144.0	257
0287 020	12 x 1,5	13.7	172.8	297
0287 021	14 x 1,5	14.6	201.6	346
0287 099	16 x 1,5	15.4	230.4	393
0287 049	20 x 1,5	17.0	288.0	491
0287 100	21 x 1,5	17.0	302.4	499
0287 065	25 x 1,5	19.8	360.0	621

**TECHNOKONTROL YKSŁY-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSŁYżo-Nr 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0287 066	32 x 1,5	21.3	460.8	758
0287 055	37 x 1,5	22.1	532.8	843
0287 101	40 x 1,5	23.4	576.0	936
0287 102	42 x 1,5	24.2	604.8	999
0287 103	50 x 1,5	26.4	720.0	1160
0287 104	56 x 1,5	27.2	806.4	1264
0287 105	61 x 1,5	28.0	878.4	1360
0287 106	65 x 1,5	28.9	936.0	1448
0287 107	75 x 1,5	31.4	1080.0	1663
0287 108	80 x 1,5	32.1	1152.0	1763
0287 109	100 x 1,5	35.5	1440.0	2192
0287 024	2 x 2,5	8.2	48.0	89
0287 025	3 x 2,5	8.7	72.0	119
0287 026	4 x 2,5	9.5	96.0	149
0287 027	5 x 2,5	10.6	120.0	193
0287 110	6 x 2,5	11.6	144.0	231
0287 030	7 x 2,5	11.6	168.0	246
0287 070	8 x 2,5	12.7	192.0	293
0287 040	10 x 2,5	15.2	240.0	359
0287 072	12 x 2,5	15.7	288.0	417
0287 033	14 x 2,5	16.5	336.0	476
0287 111	16 x 2,5	17.4	384.0	542
0287 112	20 x 2,5	19.7	480.0	698
0287 113	21 x 2,5	19.7	504.0	712
0287 114	25 x 2,5	22.4	600.0	857
0287 115	32 x 2,5	24.6	768.0	1078
0287 116	37 x 2,5	25.5	888.0	1201
0287 117	40 x 2,5	26.5	960.0	1300
0287 118	42 x 2,5	27.5	1008.0	1387
0287 119	50 x 2,5	30.0	1200.0	1616
0287 120	56 x 2,5	31.0	1344.0	1768
0287 121	61 x 2,5	32.1	1464.0	1921
0287 122	65 x 2,5	33.1	1560.0	2047
0287 123	75 x 2,5	35.8	1800.0	2333
0287 124	80 x 2,5	36.6	1920.0	2475

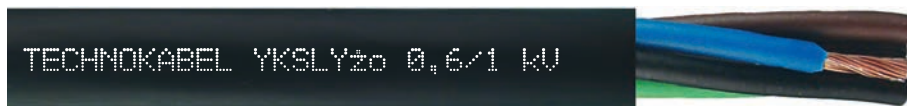
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0287 125	100 x 2,5	40.7	2400.0	3107
0287 073	2 x 4,0	9.6	76.8	127
0287 031	3 x 4,0	10.4	115.2	177
0287 126	4 x 4,0	11.4	153.6	225
0287 127	5 x 4,0	12.7	192.0	289
0287 128	7 x 4,0	13.8	268.8	372
0287 032	3 x 6,0	11.6	172.8	238
0287 129	4 x 6,0	12.9	230.4	311
0287 130	5 x 6,0	14.4	288.0	400
0287 131	7 x 6,0	15.8	403.2	518
0287 132	3 x 10,0	14.6	288.0	396
0287 133	4 x 10,0	16.0	384.0	509
0287 134	5 x 10,0	17.7	480.0	644
0287 135	7 x 10,0	19.8	672.0	864
0287 136	3 x 16,0	16.9	460.8	580
0287 137	4 x 16,0	19.1	614.4	772
0287 138	5 x 16,0	21.0	768.0	976
0287 139	7 x 16,0	23.4	1075.2	1309
0287 140	3 x 25,0	20.7	720.0	872
0287 141	4 x 25,0	23.3	960.0	1155
0287 142	5 x 25,0	25.7	1200.0	1463
0287 143	3 x 35,0	23.6	1008.0	1176
0287 144	4 x 35,0	26.0	1344.0	1528
0287 145	5 x 35,0	28.8	1680.0	1938
0287 146	3 x 50,0	28.9	1440.0	1691
0287 147	4 x 50,0	32.2	1920.0	2222
0287 148	5 x 50,0	35.7	2400.0	2830

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



**TECHNOKONTROL YKSLY 0,6/1 kV**  
**TECHNOKONTROL YKSLYżo 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



Operating voltage  
0,6/1 kV



Test voltage  
3,5 kV



Temp. range  
fixed installation  
from -30°C to +80°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

**APPLICATIONS**

**TECHNOKONTROL YKSLY 0,6/1 kV** and **TECHNOKONTROL YKSLYżo 0,6/1 kV** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYżo 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YKSLY-O 0,6/1 kV** and **TECHNOKONTROL YKSLYżo-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY 0,6/1 kV** and **TECHNOKONTROL YnKSLYżo 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH 0,6/1 kV** and **TECHNOKONTROL HKSLHżo 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY 0,6/1 kV** and **TECHNOKONTROL YvKSLYżo 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLY 0,6/1 kV**  
**TECHNOKONTROL YKSLYżo 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0284 002	2 x 0,75	6.4	14.4	49
0284 022	3 x 0,75	6.8	21.6	62
0284 003	4 x 0,75	7.4	28.8	76
0284 023	5 x 0,75	8.0	36.0	94
0284 024	6 x 0,75	8.7	43.2	112
0284 025	7 x 0,75	8.7	50.4	116
0284 026	8 x 0,75	9.4	57.6	135
0284 027	10 x 0,75	11.2	72.0	165
0284 028	12 x 0,75	11.6	86.4	190
0284 029	14 x 0,75	12.4	100.8	222
0284 030	16 x 0,75	13.1	115.2	252
0284 031	20 x 0,75	14.7	144.0	320
0284 032	21 x 0,75	14.7	151.2	324
0284 033	25 x 0,75	16.6	180.0	390
0284 034	32 x 0,75	17.9	230.4	472
0284 035	37 x 0,75	19.0	266.4	541
0284 036	40 x 0,75	19.7	288.0	584
0284 037	42 x 0,75	20.4	302.4	625
0284 038	50 x 0,75	22.2	360.0	723
0284 039	56 x 0,75	23.3	403.2	808
0284 040	61 x 0,75	24.0	439.2	866
0284 041	65 x 0,75	24.7	468.0	921
0284 042	75 x 0,75	26.7	540.0	1044
0284 043	80 x 0,75	27.3	576.0	1104
0284 044	100 x 0,75	30.0	720.0	1368
0284 004	2 x 1,0	6.8	19.2	56
0284 005	3 x 1,0	7.2	28.8	72
0284 045	4 x 1,0	7.8	38.4	89
0284 046	5 x 1,0	8.5	48.0	110
0284 047	6 x 1,0	9.3	57.6	131
0284 048	7 x 1,0	9.3	67.2	137
0284 049	8 x 1,0	10.2	76.8	165

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0284 050	10 x 1,0	12.2	96.0	203
0284 051	12 x 1,0	12.5	115.2	232
0284 006	14 x 1,0	13.2	134.4	264
0284 052	16 x 1,0	13.9	153.6	300
0284 053	20 x 1,0	15.6	192.0	381
0284 054	21 x 1,0	15.6	201.6	387
0284 055	25 x 1,0	17.7	240.0	466
0284 056	32 x 1,0	19.5	307.2	588
0284 057	37 x 1,0	20.2	355.2	650
0284 058	40 x 1,0	21.0	384.0	703
0284 059	42 x 1,0	21.8	403.2	753
0284 060	50 x 1,0	24.2	480.0	897
0284 061	56 x 1,0	24.9	537.6	974
0284 062	61 x 1,0	25.6	585.6	1045
0284 063	65 x 1,0	26.4	624.0	1112
0284 064	75 x 1,0	28.5	720.0	1263
0284 065	80 x 1,0	29.1	768.0	1337
0284 066	100 x 1,0	32.3	960.0	1677
0284 008	2 x 1,5	7.3	28.8	68
0284 009	3 x 1,5	7.7	43.2	89
0284 010	4 x 1,5	8.5	57.6	111
0284 067	5 x 1,5	9.3	72.0	139
0284 068	6 x 1,5	10.3	86.4	171
0284 011	7 x 1,5	10.3	100.8	180
0284 069	8 x 1,5	11.1	115.2	210
0284 070	10 x 1,5	13.2	144.0	257
0284 012	12 x 1,5	13.7	172.8	297
0284 013	14 x 1,5	14.6	201.6	346
0284 071	16 x 1,5	15.4	230.4	393
0284 072	20 x 1,5	17.0	288.0	491
0284 073	21 x 1,5	17.0	302.4	499
0284 074	25 x 1,5	19.8	360.0	621

**TECHNOKONTROL YKSLY 0,6/1 kV**  
**TECHNOKONTROL YKSLYżo 0,6/1 kV**

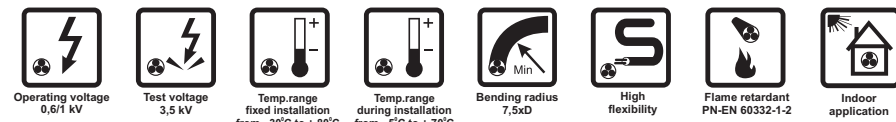
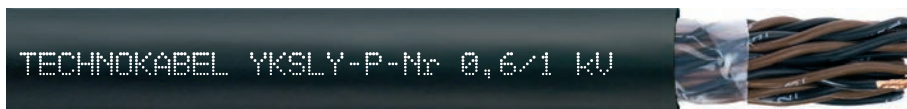
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0284 075	32 x 1,5	21.3	460.8	758
0284 076	37 x 1,5	22.1	532.8	843
0284 077	40 x 1,5	23.4	576.0	936
0284 078	42 x 1,5	24.2	604.8	999
0284 079	50 x 1,5	26.4	720.0	1160
0284 080	56 x 1,5	27.2	806.4	1264
0284 081	61 x 1,5	28.0	878.4	1360
0284 082	65 x 1,5	28.9	936.0	1448
0284 083	75 x 1,5	31.4	1080.0	1663
0284 084	80 x 1,5	32.1	1152.0	1763
0284 085	100 x 1,5	35.5	1440.0	2192
0284 014	2 x 2,5	8.2	48.0	89
0284 015	3 x 2,5	8.7	72.0	119
0284 017	4 x 2,5	9.5	96.0	149
0284 086	5 x 2,5	10.6	120.0	193
0284 087	6 x 2,5	11.6	144.0	231
0284 088	7 x 2,5	11.6	168.0	246
0284 089	8 x 2,5	12.7	192.0	293
0284 090	10 x 2,5	15.2	240.0	359
0284 091	12 x 2,5	15.7	288.0	417
0284 092	14 x 2,5	16.5	336.0	476
0284 093	16 x 2,5	17.4	384.0	542
0284 094	20 x 2,5	19.7	480.0	698
0284 095	21 x 2,5	19.7	504.0	712
0284 096	25 x 2,5	22.4	600.0	857
0284 097	32 x 2,5	24.6	768.0	1078
0284 098	37 x 2,5	25.5	888.0	1201
0284 099	40 x 2,5	26.5	960.0	1300
0284 100	42 x 2,5	27.5	1008.0	1387
0284 101	50 x 2,5	30.0	1200.0	1616
0284 102	56 x 2,5	31.0	1344.0	1768
0284 103	61 x 2,5	32.1	1464.0	1921
0284 104	65 x 2,5	33.1	1560.0	2047
0284 105	75 x 2,5	35.8	1800.0	2333
0284 106	80 x 2,5	36.6	1920.0	2475

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0284 107	100 x 2,5	40.7	2400.0	3107
0284 108	2 x 4,0	9.6	76.8	127
0284 020	3 x 4,0	10.4	115.2	177
0284 109	4 x 4,0	11.4	153.6	225
0284 110	5 x 4,0	12.7	192.0	289
0284 021	7 x 4,0	13.8	268.8	372
0284 111	3 x 6,0	11.6	172.8	238
0284 112	4 x 6,0	12.9	230.4	311
0284 113	5 x 6,0	14.4	288.0	400
0284 114	7 x 6,0	15.8	403.2	518
0284 115	3 x 10,0	14.6	288.0	396
0284 116	4 x 10,0	16.0	384.0	509
0284 117	5 x 10,0	17.7	480.0	644
0284 118	7 x 10,0	19.8	672.0	864
0284 119	3 x 16,0	16.9	460.8	580
0284 120	4 x 16,0	19.1	614.4	772
0284 121	5 x 16,0	21.0	768.0	976
0284 122	7 x 16,0	23.4	1075.2	1309
0284 123	3 x 25,0	20.7	720.0	872
0284 124	4 x 25,0	23.3	960.0	1155
0284 125	5 x 25,0	25.7	1200.0	1463
0284 126	3 x 35,0	23.6	1008.0	1176
0284 127	4 x 35,0	26.0	1344.0	1528
0284 128	5 x 35,0	28.8	1680.0	1938
0284 129	3 x 50,0	28.9	1440.0	1691
0284 130	4 x 50,0	32.2	1920.0	2222
0284 131	5 x 50,0	35.7	2400.0	2830

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YKSLY-P 0,6/1 kV**  
**TECHNOKONTROL YKSLY-P-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YKSLY-P 0,6/1 kV** and **TECHNOKONTROL YKSLY-P-Nr 0,6/1 kV** are multipair flexible cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YKSLY-P 0,6/1 kV** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLY-P-Nr 0,6/1 kV** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YKSLY-P-O 0,6/1 kV** and **TECHNOKONTROL YKSLY-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY-P 0,6/1 kV** and **TECHNOKONTROL YnKSLY-P-Nr 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH-P 0,6/1 kV** and **TECHNOKONTROL HKSLHP-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY-P 0,6/1 kV** and **TECHNOKONTROL YvKSLY-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLY-P 0,6/1 kV**  
**TECHNOKONTROL YKSLY-P-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-17

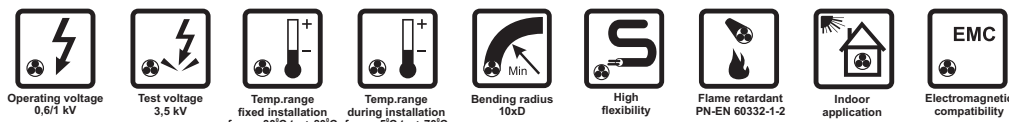
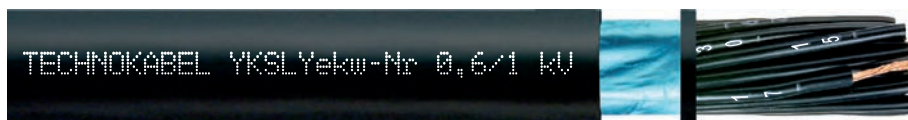
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0290 008	2 x 2 x 0,5	9.0	19.2	82
0290 009	3 x 2 x 0,5	9.6	28.8	95
0290 010	4 x 2 x 0,5	10.7	38.4	122
0290 001	5 x 2 x 0,5	11.8	48.0	145
0290 011	6 x 2 x 0,5	13.1	57.6	175
0290 012	7 x 2 x 0,5	13.1	67.2	193
0290 013	8 x 2 x 0,5	13.9	76.8	215
0290 002	10 x 2 x 0,5	16.0	96.0	269
0290 014	12 x 2 x 0,5	16.8	115.2	309
0290 015	14 x 2 x 0,5	17.9	134.4	351
0290 016	16 x 2 x 0,5	19.4	153.6	413
0290 017	18 x 2 x 0,5	20.4	172.8	455
0290 018	20 x 2 x 0,5	21.4	192.0	497
0290 019	24 x 2 x 0,5	23.5	230.4	604
0290 020	2 x 2 x 0,75	9.7	28.8	96
0290 021	3 x 2 x 0,75	10.4	43.2	118
0290 022	4 x 2 x 0,75	11.5	57.6	146
0290 023	5 x 2 x 0,75	12.8	72.0	181
0290 024	7 x 2 x 0,75	14.0	100.8	233
0290 025	10 x 2 x 0,75	17.2	144.0	327
0290 026	12 x 2 x 0,75	18.0	172.8	376
0290 027	14 x 2 x 0,75	19.7	201.6	449
0290 028	16 x 2 x 0,75	20.8	230.4	503
0290 029	18 x 2 x 0,75	21.9	259.2	556
0290 030	2 x 2 x 1,0	10.5	38.4	119
0290 031	3 x 2 x 1,0	11.1	57.6	138

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0290 032	4 x 2 x 1,0	12.4	76.8	178
0290 004	5 x 2 x 1,0	13.7	96.0	214
0290 033	7 x 2 x 1,0	15.1	134.4	285
0290 034	10 x 2 x 1,0	18.3	192.0	389
0290 035	12 x 2 x 1,0	19.6	230.4	470
0290 036	14 x 2 x 1,0	21.0	268.8	537
0290 005	16 x 2 x 1,0	22.2	307.2	602
0290 037	18 x 2 x 1,0	23.8	345.6	690
0290 038	2 x 2 x 1,5	11.4	57.6	148
0290 039	3 x 2 x 1,5	12.3	86.4	180
0290 040	4 x 2 x 1,5	13.5	115.2	224
0290 041	5 x 2 x 1,5	15.1	144.0	278
0290 007	7 x 2 x 1,5	16.5	201.6	363
0290 006	10 x 2 x 1,5	20.5	288.0	520
0290 042	12 x 2 x 1,5	21.4	345.6	602
0290 043	14 x 2 x 1,5	23.3	403.2	712
0290 044	16 x 2 x 1,5	24.7	460.8	797
0290 045	2 x 2 x 2,5	13.0	96.0	201
0290 046	3 x 2 x 2,5	13.8	144.0	241
0290 047	4 x 2 x 2,5	15.5	192.0	312
0290 048	5 x 2 x 2,5	17.1	240.0	377
0290 049	7 x 2 x 2,5	19.1	336.0	517
0290 050	10 x 2 x 2,5	23.6	480.0	737
0290 051	12 x 2 x 2,5	24.7	576.0	853
0290 052	14 x 2 x 2,5	26.5	672.0	978
0290 053	16 x 2 x 2,5	28.1	768.0	1102

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YKSLYekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLYekwżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



## APPLICATIONS

**TECHNOKONTROL YKSLYekw-Nr 0,6/1 kV** and **TECHNOKONTROL YKSLYekwżo-Nr 0,6/1 kV** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYekwżo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-Nr-O 0,6/1 kV** and **TECHNOKONTROL YKSLYekwżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw-Nr 0,6/1 kV** and **TECHNOKONTROL YnKSLYekwżo-Nr 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YvKSLYekw-Nr 0,6/1 kV** and **TECHNOKONTROL YvKSLYekwżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLYekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLYekwżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	from - 30 to + 80°C
Voltage test	3.5 kV rms	for fixed installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0317 003	2 x 0,5	6.2	12.0	46
0317 078	3 x 0,5	6.5	16.8	56
0317 102	4 x 0,5	7.0	21.6	68
0317 073	5 x 0,5	7.7	26.4	83
0317 103	6 x 0,5	8.3	31.2	98
0317 086	7 x 0,5	8.3	36.0	101
0317 072	8 x 0,5	8.9	40.8	116
0317 005	10 x 0,5	10.6	50.4	142
0317 104	12 x 0,5	10.9	60.0	161
0317 105	14 x 0,5	11.5	69.6	182
0317 069	16 x 0,5	12.3	79.2	212
0317 106	20 x 0,5	13.6	98.4	261
0317 107	21 x 0,5	13.6	103.2	264
0317 108	25 x 0,5	15.6	122.4	326
0317 070	32 x 0,5	16.8	156.0	391
0317 109	37 x 0,5	17.4	180.0	430
0317 110	42 x 0,5	19.1	204.0	516
0317 111	50 x 0,5	20.8	242.4	596
0317 112	56 x 0,5	21.4	271.2	643
0317 113	61 x 0,5	22.1	295.2	689
0317 006	2 x 0,75	6.5	19.2	55
0317 007	3 x 0,75	6.9	26.4	68
0317 008	4 x 0,75	7.5	33.6	82
0317 009	5 x 0,75	8.1	40.8	100
0317 093	6 x 0,75	8.8	48.0	118
0317 058	7 x 0,75	8.8	55.2	122
0317 114	8 x 0,75	9.5	62.4	141
0317 010	10 x 0,75	11.3	76.8	173
0317 011	12 x 0,75	11.7	91.2	197
0317 115	14 x 0,75	12.5	105.6	229
0317 067	16 x 0,75	13.2	120.0	259
0317 116	20 x 0,75	14.8	148.8	328

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0317 117	21 x 0,75	14.8	156.0	332
0317 118	25 x 0,75	16.7	184.8	399
0317 119	32 x 0,75	18.0	235.2	482
0317 087	37 x 0,75	19.1	271.2	550
0317 120	42 x 0,75	20.5	307.2	635
0317 121	50 x 0,75	22.3	364.8	734
0317 012	2 x 1,0	6.9	24.0	62
0317 015	3 x 1,0	7.3	33.6	78
0317 016	4 x 1,0	7.9	43.2	95
0317 017	5 x 1,0	8.6	52.8	116
0317 096	6 x 1,0	9.4	62.4	138
0317 018	7 x 1,0	9.4	72.0	144
0317 046	8 x 1,0	10.3	81.6	172
0317 020	10 x 1,0	12.3	100.8	211
0317 021	12 x 1,0	12.6	120.0	240
0317 022	14 x 1,0	13.3	139.2	272
0317 056	16 x 1,0	14.0	158.4	308
0317 062	20 x 1,0	15.7	196.8	390
0317 092	21 x 1,0	15.7	206.4	395
0317 094	25 x 1,0	17.8	244.8	476
0317 095	32 x 1,0	19.6	312.0	597
0317 026	37 x 1,0	20.3	360.0	660
0317 053	42 x 1,0	21.9	408.0	763
0317 071	50 x 1,0	24.3	484.8	908
0317 027	2 x 1,5	7.4	36.0	77
0317 028	3 x 1,5	7.8	50.4	97
0317 029	4 x 1,5	8.6	64.8	120
0317 030	5 x 1,5	9.4	79.2	147
0317 088	6 x 1,5	10.4	93.6	180
0317 032	7 x 1,5	10.4	108.0	189
0317 080	8 x 1,5	11.2	122.4	219

**TECHNOKONTROL YKSLYekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLYekwżo-Nr 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0317 035	10 x 1,5	13.3	151.2	267
0317 036	12 x 1,5	13.8	180.0	307
0317 037	14 x 1,5	14.7	208.8	356
0317 055	16 x 1,5	15.5	237.6	404
0317 047	20 x 1,5	17.1	295.2	501
0317 122	21 x 1,5	17.1	309.6	510
0317 076	25 x 1,5	19.9	367.2	633
0317 098	32 x 1,5	21.4	468.0	771
0317 099	37 x 1,5	22.2	540.0	855
0317 123	42 x 1,5	24.3	612.0	1011
0317 124	50 x 1,5	26.5	727.2	1174
0317 063	2 x 2,5	8.3	55.2	98
0317 040	3 x 2,5	8.8	79.2	127
0317 041	4 x 2,5	9.6	103.2	158
0317 042	5 x 2,5	10.7	127.2	202
0317 043	6 x 2,5	11.7	151.2	241
0317 064	7 x 2,5	11.7	175.2	255
0317 077	8 x 2,5	12.8	199.2	303
0317 044	10 x 2,5	15.3	247.2	370
0317 101	12 x 2,5	15.8	295.2	427
0317 061	14 x 2,5	16.6	343.2	487
0317 054	16 x 2,5	17.5	391.2	553
0317 125	20 x 2,5	19.8	487.2	709
0317 126	21 x 2,5	19.8	511.2	723
0317 127	25 x 2,5	22.5	607.2	869
0317 128	2 x 4,0	9.7	86.4	138
0317 045	3 x 4,0	10.5	124.8	189
0317 089	4 x 4,0	11.5	163.2	237

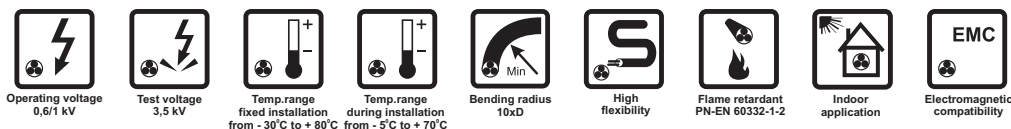
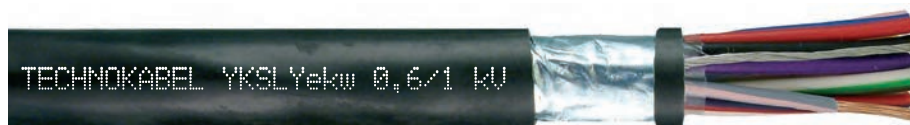
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0317 129	5 x 4,0	12.8	201.6	301
0317 091	7 x 4,0	13.9	278.4	384
0317 130	3 x 6,0	11.7	182.4	250
0317 131	4 x 6,0	13.0	240.0	323
0317 132	5 x 6,0	14.5	297.6	412
0317 133	7 x 6,0	15.9	412.8	530
0317 082	3 x 10,0	14.7	297.6	409
0317 134	4 x 10,0	16.1	393.6	522
0317 135	5 x 10,0	17.8	489.6	657
0317 136	7 x 10,0	19.9	681.6	877
0317 083	3 x 16,0	17.0	475.2	598
0317 137	4 x 16,0	19.2	628.8	790
0317 138	5 x 16,0	21.1	782.4	994
0317 139	7 x 16,0	23.5	1089.6	1327
0317 084	3 x 25,0	20.8	734.4	890
0317 140	4 x 25,0	23.4	974.4	1174
0317 141	5 x 25,0	25.8	1214.4	1482
0317 142	3 x 35,0	23.7	1022.4	1195
0317 143	4 x 35,0	26.1	1358.4	1547
0317 144	5 x 35,0	28.9	1694.4	1959
0317 145	3 x 50,0	29.0	1464.0	1719
0317 146	4 x 50,0	32.3	1944.0	2251
0317 147	5 x 50,0	35.8	2424.0	2860

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOKONTROL YKSLYekw 0,6/1 kV TECHNOKONTROL YKSLYekwżo 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLYekw 0,6/1 kV** and **TECHNOKONTROL YKSLYekwżo 0,6/1 kV** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YKSLYekwżo 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-O 0,6/1 kV** and **TECHNOKONTROL YKSLYekwżo-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw 0,6/1 kV** and **TECHNOKONTROL YnKSLYekwżo 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YvKSLYekw 0,6/1 kV** and **TECHNOKONTROL YvKSLYekwżo 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLYekw 0,6/1 kV**  
**TECHNOKONTROL YKSLYekwżo 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0312 010	2 x 0,75	6.5	19.2	55
0312 011	3 x 0,75	6.9	26.4	68
0312 042	4 x 0,75	7.5	33.6	82
0312 012	5 x 0,75	8.1	40.8	100
0312 043	6 x 0,75	8.8	48.0	118
0312 044	7 x 0,75	8.8	55.2	122
0312 045	8 x 0,75	9.5	62.4	141
0312 046	10 x 0,75	11.3	76.8	173
0312 014	12 x 0,75	11.7	91.2	197
0312 015	14 x 0,75	12.5	105.6	229
0312 040	16 x 0,75	13.2	120.0	259
0312 047	20 x 0,75	14.8	148.8	328
0312 048	21 x 0,75	14.8	156.0	332
0312 049	25 x 0,75	16.7	184.8	399
0312 050	32 x 0,75	18.0	235.2	482
0312 051	37 x 0,75	19.1	271.2	550
0312 052	42 x 0,75	20.5	307.2	635
0312 053	48 x 0,75	21.7	350.4	693
0312 054	50 x 0,75	22.3	364.8	734
0312 016	2 x 1,0	6.9	24.0	62
0312 017	3 x 1,0	7.3	33.6	78
0312 019	4 x 1,0	7.9	43.2	95
0312 020	5 x 1,0	8.6	52.8	116
0312 055	6 x 1,0	9.4	62.4	138
0312 021	7 x 1,0	9.4	72.0	144
0312 056	8 x 1,0	10.3	81.6	172
0312 022	10 x 1,0	12.3	100.8	211
0312 057	12 x 1,0	12.6	120.0	240
0312 023	14 x 1,0	13.3	139.2	272
0312 058	16 x 1,0	14.0	158.4	308
0312 059	20 x 1,0	15.7	196.8	390
0312 060	21 x 1,0	15.7	206.4	395

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0312 061	25 x 1,0	17.8	244.8	476
0312 062	32 x 1,0	19.6	312.0	597
0312 027	37 x 1,0	20.3	360.0	660
0312 063	42 x 1,0	21.9	408.0	763
0312 064	48 x 1,0	23.6	465.6	858
0312 065	50 x 1,0	24.3	484.8	908
0312 028	2 x 1,5	7.4	36.0	77
0312 029	3 x 1,5	7.8	50.4	97
0312 066	4 x 1,5	8.6	64.8	120
0312 030	5 x 1,5	9.4	79.2	147
0312 067	6 x 1,5	10.4	93.6	180
0312 031	7 x 1,5	10.4	108.0	189
0312 068	8 x 1,5	11.2	122.4	219
0312 032	10 x 1,5	13.3	151.2	267
0312 069	12 x 1,5	13.8	180.0	307
0312 033	14 x 1,5	14.7	208.8	356
0312 070	16 x 1,5	15.5	237.6	404
0312 071	20 x 1,5	17.1	295.2	501
0312 072	21 x 1,5	17.1	309.6	510
0312 073	25 x 1,5	19.9	367.2	633
0312 074	32 x 1,5	21.4	468.0	771
0312 075	37 x 1,5	22.2	540.0	855
0312 076	40 x 1,5	23.5	583.2	948
0312 077	2 x 2,5	8.3	55.2	98
0312 036	3 x 2,5	8.8	79.2	127
0312 037	4 x 2,5	9.6	103.2	158
0312 038	5 x 2,5	10.7	127.2	202
0312 039	6 x 2,5	11.7	151.2	241
0312 078	7 x 2,5	11.7	175.2	255
0312 079	8 x 2,5	12.8	199.2	303
0312 080	10 x 2,5	15.3	247.2	370

**TECHNOKONTROL YKSLYekw 0,6/1 kV**  
**TECHNOKONTROL YKSLYekwżo 0,6/1 kV**

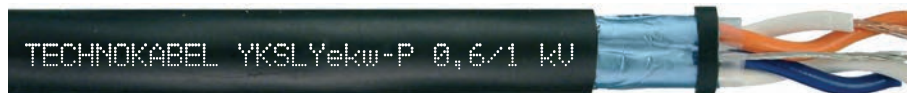
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0312 081	12 x 2,5	15.8	295.2	427
0312 082	14 x 2,5	16.6	343.2	487
0312 083	16 x 2,5	17.5	391.2	553
0312 084	20 x 2,5	19.8	487.2	709
0312 085	21 x 2,5	19.8	511.2	723
0312 086	25 x 2,5	22.5	607.2	869
0312 087	2 x 4,0	9.7	86.4	138
0312 088	3 x 4,0	10.5	124.8	189
0312 089	4 x 4,0	11.5	163.2	237
0312 090	5 x 4,0	12.8	201.6	301
0312 091	7 x 4,0	13.9	278.4	384
0312 092	3 x 6,0	11.7	182.4	250
0312 093	4 x 6,0	13.0	240.0	323
0312 094	5 x 6,0	14.5	297.6	412
0312 095	7 x 6,0	15.9	412.8	530
0312 096	3 x 10,0	14.7	297.6	409
0312 097	4 x 10,0	16.1	393.6	522

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0312 098	5 x 10,0	17.8	489.6	657
0312 099	7 x 10,0	19.9	681.6	877
0312 100	3 x 16,0	17.0	475.2	598
0312 101	4 x 16,0	19.2	628.8	790
0312 102	5 x 16,0	21.1	782.4	994
0312 103	7 x 16,0	23.5	1089.6	1327
0312 104	3 x 25,0	20.8	734.4	890
0312 105	4 x 25,0	23.4	974.4	1174
0312 106	5 x 25,0	25.8	1214.4	1482
0312 107	3 x 35,0	23.7	1022.4	1195
0312 108	4 x 35,0	26.1	1358.4	1547
0312 109	5 x 35,0	28.9	1694.4	1959
0312 110	3 x 50,0	29.0	1464.0	1719
0312 111	4 x 50,0	32.3	1944.0	2251
0312 112	5 x 50,0	35.8	2424.0	2860

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YKSLYekw-P 0,6/1 kV**  
**TECHNOKONTROL YKSLYekw-P-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YKSLYekw-P 0,6/1 kV** and **TECHNOKONTROL YKSLYekw-P-Nr 0,6/1 kV** are multipair flexible, overall shielded cables designed for control, protection and monitoring systems or power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YKSLYekw-P 0,6/1 kV** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLYekw-P-Nr 0,6/1 kV** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YKSLYekw-P-O 0,6/1 kV** and **TECHNOKONTROL YKSLYekw-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw-P 0,6/1 kV** and **TECHNOKONTROL YnKSLYekw-P-Nr 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YvKSLYekw-P 0,6/1 kV** and **TECHNOKONTROL YvKSLYekw-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLYekw-P 0,6/1 kV**  
**TECHNOKONTROL YKSLYekw-P-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-17

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0324 001	2 x 2 x 0,5	9.1	21.6	87
0324 002	3 x 2 x 0,5	9.7	31.2	100
0324 003	4 x 2 x 0,5	10.8	40.8	127
0324 004	5 x 2 x 0,5	11.9	50.4	151
0324 005	6 x 2 x 0,5	13.2	60.0	181
0324 006	7 x 2 x 0,5	13.2	69.6	199
0324 007	8 x 2 x 0,5	14.0	79.2	221
0324 009	10 x 2 x 0,5	16.1	98.4	276
0324 010	12 x 2 x 0,5	16.9	117.6	316
0324 011	14 x 2 x 0,5	18.0	136.8	358
0324 013	16 x 2 x 0,5	19.5	156.0	420
0324 014	18 x 2 x 0,5	20.5	175.2	463
0324 015	20 x 2 x 0,5	21.5	194.4	506
0324 017	24 x 2 x 0,5	23.6	232.8	612
0324 018	2 x 2 x 0,75	10.0	33.6	108
0324 045	3 x 2 x 0,75	10.5	48.0	125
0324 046	4 x 2 x 0,75	11.6	62.4	154
0324 041	5 x 2 x 0,75	12.9	76.8	188
0324 042	7 x 2 x 0,75	14.1	105.6	241
0324 039	10 x 2 x 0,75	17.3	148.8	336
0324 047	12 x 2 x 0,75	18.1	177.6	386
0324 048	14 x 2 x 0,75	19.8	206.4	459
0324 019	16 x 2 x 0,75	20.9	235.2	513
0324 049	24 x 2 x 0,75	25.4	350.4	747
0324 020	2 x 2 x 1,0	10.6	43.2	126
0324 021	3 x 2 x 1,0	11.2	62.4	146

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0324 022	4 x 2 x 1,0	12.5	81.6	186
0324 023	5 x 2 x 1,0	13.8	100.8	222
0324 038	7 x 2 x 1,0	15.2	139.2	293
0324 025	10 x 2 x 1,0	18.8	196.8	417
0324 025	12 x 2 x 1,0	19.7	235.2	480
0324 050	14 x 2 x 1,0	21.1	273.6	547
0324 051	16 x 2 x 1,0	22.3	312.0	612
0324 052	18 x 2 x 1,0	23.9	350.4	701
0324 027	2 x 2 x 1,5	11.5	64.8	157
0324 028	3 x 2 x 1,5	12.4	93.6	189
0324 029	4 x 2 x 1,5	13.6	122.4	234
0324 030	5 x 2 x 1,5	15.2	151.2	288
0324 044	7 x 2 x 1,5	16.6	208.8	374
0324 008	10 x 2 x 1,5	20.6	295.2	532
0324 053	12 x 2 x 1,5	21.5	352.8	615
0324 054	14 x 2 x 1,5	23.4	410.4	725
0324 055	16 x 2 x 1,5	24.8	468.0	810
0324 056	2 x 2 x 2,5	13.1	103.2	211
0324 057	3 x 2 x 2,5	13.9	151.2	251
0324 043	4 x 2 x 2,5	15.6	199.2	323
0324 058	5 x 2 x 2,5	17.2	247.2	388
0324 059	7 x 2 x 2,5	19.2	343.2	529
0324 060	10 x 2 x 2,5	23.7	487.2	750
0324 061	12 x 2 x 2,5	24.8	583.2	866
0324 062	14 x 2 x 2,5	26.6	679.2	992
0324 063	16 x 2 x 2,5	28.2	775.2	1116

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekpekww 0,6/1 kV TECHNOKONTROL YKSLYekpekww-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLYekpekww 0,6/1 kV** and **TECHNOKONTROL YKSLYekpekww-Nr 0,6/1 kV** are multipair, pair and overall shielded cables intended for control and protection systems or power supply, all in power engineering.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YKSLYekpekww 0,6/1 kV** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLYekpekww-Nr 0,6/1 kV** cable,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YvKSLYekpekww 0,6/1 kV** and **TECHNOKONTROL YvKSLYekpekww-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLYekpekww-O 0,6/1 kV** and **TECHNOKONTROL YKSLYekpekww-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekpekww 0,6/1 kV** and **TECHNOKONTROL YnKSLYekpekww-Nr 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL YKSLYekpek w 0,6/1 kV**  
**TECHNOKONTROL YKSLYekpek w-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2 , IEC 60332-1-2
		Reference standards	WT-TK-17

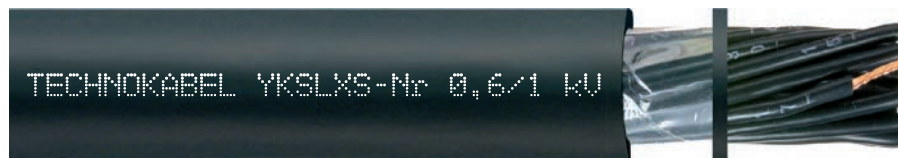
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0302 019	2 x 2 x 0,5	11.5	26.7	118,5
0302 001	3 x 2 x 0,5	12.2	38.8	152,0
0302 027	4 x 2 x 0,5	13.4	50.9	187,5
0302 028	5 x 2 x 0,5	15.0	63.0	231,0
0302 024	6 x 2 x 0,5	16.3	75.2	268,5
0302 003	8 x 2 x 0,5	17.4	99.4	333,5
0302 029	10 x 2 x 0,5	20.2	123.7	425,5
0302 030	12 x 2 x 0,5	21.2	147.0	490,5
0302 031	14 x 2 x 0,5	22.6	170.4	559,0
0302 021	16 x 2 x 0,5	24.4	196.5	649,5
0302 032	18 x 2 x 0,5	25.7	220.7	718,0
0302 033	24 x 2 x 0,5	29.1	293.5	921,0
0302 004	2 x 2 x 0,75	12.4	43.6	144,5
0302 034	3 x 2 x 0,75	13.2	63.0	187,0
0302 016	4 x 2 x 0,75	14.7	82.5	239,5
0302 035	5 x 2 x 0,75	16.2	101.9	287,0
0302 036	8 x 2 x 0,75	19.2	160.1	436,5
0302 018	10 x 2 x 0,75	20.9	198.9	525,0
0302 025	12 x 2 x 0,75	23.3	237.8	637,5
0302 026	16 x 2 x 0,75	26.4	315.4	816,0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0302 014	2 x 2 x 1,0	12.8	53.4	157,5
0302 007	3 x 2 x 1,0	13.4	77.7	205,5
0302 037	4 x 2 x 1,0	15.1	102.0	265,0
0302 008	5 x 2 x 1,0	16.6	126.3	318,5
0302 038	8 x 2 x 1,0	19.8	199.2	485,5
0302 039	10 x 2 x 1,0	22.5	247.8	593,0
0302 020	12 x 2 x 1,0	24.0	296.4	711,5
0302 009	2 x 2 x 1,5	13.8	78.7	195,0
0302 040	3 x 2 x 1,5	14.8	114.4	265,0
0302 010	4 x 2 x 1,5	16.3	150.2	333,5
0302 011	5 x 2 x 1,5	18.0	185.9	402,5
0302 023	8 x 2 x 1,5	21.4	293.1	617,0
0302 041	10 x 2 x 1,5	24.8	364.6	778,5
0302 042	2 x 2 x 2,5	15.4	116.9	254,5
0302 043	3 x 2 x 2,5	16.3	171.7	341,5
0302 044	4 x 2 x 2,5	18.0	226.5	433,0
0302 045	5 x 2 x 2,5	20.3	281.4	545,0
0302 046	8 x 2 x 2,5	24.0	447.9	834,5
0302 047	10 x 2 x 2,5	27.4	555.6	1024,0

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXS-Nr 0,6/1 kV TECHNOKONTROL YKSLXSžo-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



Operating voltage  
0,6/1 kV



Test voltage  
3,5 kV



Temp. range  
fixed installation  
from -30°C to +80°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

### APPLICATIONS

**TECHNOKONTROL YKSLXS-Nr 0,6/1 kV** and **TECHNOKONTROL YKSLXSžo-Nr 0,6/1 kV** are cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **YKSLXSžo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXS-Nr-O 0,6/1 kV** and **TECHNOKONTROL YKSLXSžo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXS-Nr 0,6/1 kV** and **TECHNOKONTROL HKSLXSžo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXS-Nr 0,6/1 kV** and **TECHNOKONTROL YvKSLXSžo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.



**TECHNOKONTROL YKSLXS-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLXSžo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Capacitance between conductors at 1 kHz, appr.	nF/km	40	40	40	50	50	60
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386
Capacitance between conductors at 1 kHz, appr.	nF/km	60	60	60	60	60	60

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Conductor temperature limit in work conditions at short-circuit	+ 90°C + 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0712 004	2 x 0,5	6.0	9.6	38
0712 005	3 x 0,5	6.3	14.4	46
0712 006	4 x 0,5	6.8	19.2	55
0712 007	5 x 0,5	7.4	24.0	68
0712 008	6 x 0,5	8.1	28.8	80
0712 009	7 x 0,5	8.1	33.6	81
0712 010	10 x 0,5	10.4	48.0	117
0712 011	12 x 0,5	10.7	57.6	131
0712 012	16 x 0,5	11.8	76.8	167
0712 013	20 x 0,5	13.3	96.0	214
0712 014	25 x 0,5	15.3	120.0	266
0712 015	32 x 0,5	16.4	153.6	317
0712 016	37 x 0,5	17.0	177.6	346
0712 017	44 x 0,5	19.5	211.2	425
0712 018	50 x 0,5	20.4	240.0	483
0712 019	56 x 0,5	21.0	268.8	519
0712 020	61 x 0,5	21.6	292.8	554
0712 021	65 x 0,5	22.2	312.0	587
0712 022	75 x 0,5	24.4	360.0	689
0712 023	80 x 0,5	25.0	384.0	727
0712 024	100 x 0,5	27.5	480.0	896
0712 025	2 x 0,75	6.3	14.4	44
0712 026	3 x 0,75	6.7	21.6	54
0712 027	4 x 0,75	7.3	28.8	67
0712 028	5 x 0,75	7.9	36.0	81
0712 029	6 x 0,75	8.6	43.2	97
0712 030	7 x 0,75	8.6	50.4	99
0712 031	10 x 0,75	11.1	72.0	142
0712 032	12 x 0,75	11.4	86.4	162

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0712 033	16 x 0,75	12.9	115.2	214
0712 034	20 x 0,75	14.4	144.0	272
0712 035	25 x 0,75	16.4	180.0	331
0712 036	32 x 0,75	17.6	230.4	397
0712 037	37 x 0,75	18.3	266.4	436
0712 038	42 x 0,75	20.1	302.4	527
0712 039	50 x 0,75	21.9	360.0	607
0712 040	56 x 0,75	22.6	403.2	655
0712 041	61 x 0,75	23.6	439.2	724
0712 042	65 x 0,75	24.3	468.0	768
0712 043	75 x 0,75	26.3	540.0	870
0712 044	80 x 0,75	26.8	576.0	919
0712 045	100 x 0,75	29.6	720.0	1137
0712 046	2 x 1,0	6.7	19.2	50
0712 047	3 x 1,0	7.1	28.8	64
0712 048	4 x 1,0	7.7	38.4	78
0712 049	5 x 1,0	8.4	48.0	97
0712 050	6 x 1,0	9.2	57.6	116
0712 051	7 x 1,0	9.2	67.2	119
0712 052	10 x 1,0	11.8	96.0	171
0712 053	12 x 1,0	12.4	115.2	202
0712 054	16 x 1,0	13.7	153.6	259
0712 055	20 x 1,0	15.4	192.0	329
0712 056	25 x 1,0	17.5	240.0	402
0712 057	32 x 1,0	19.2	307.2	505
0712 058	37 x 1,0	20.0	355.2	556
0712 059	42 x 1,0	21.5	403.2	644
0712 060	50 x 1,0	23.8	480.0	768
0712 061	56 x 1,0	24.5	537.6	830

**TECHNOKONTROL YKSLXS-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLXSžo-Nr 0,6/1 kV**

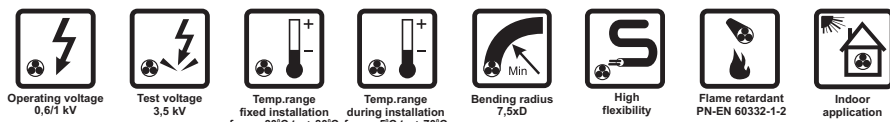
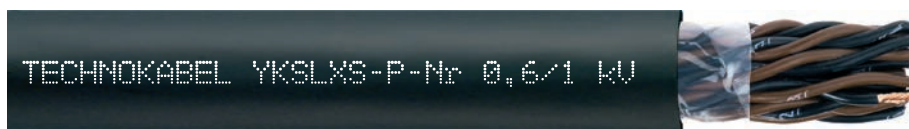
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0712 062	61 x 1,0	25.3	585.6	890
0712 063	65 x 1,0	26.0	624.0	944
0712 064	75 x 1,0	28.1	720.0	1071
0712 065	80 x 1,0	28.7	768.0	1133
0712 066	100 x 1,0	31.9	960.0	1421
0712 067	2 x 1,5	7.2	28.8	62
0712 002	3 x 1,5	7.7	43.2	80
0712 068	4 x 1,5	8.4	57.6	99
0712 003	5 x 1,5	9.1	72.0	123
0712 069	6 x 1,5	10.2	86.4	153
0712 070	7 x 1,5	10.2	100.8	160
0712 001	10 x 1,5	13.1	144.0	228
0712 071	12 x 1,5	13.5	172.8	262
0712 072	16 x 1,5	15.2	230.4	346
0712 073	20 x 1,5	16.8	288.0	430
0712 074	25 x 1,5	19.5	360.0	547
0712 075	32 x 1,5	21.0	460.8	664
0712 076	37 x 1,5	21.8	532.8	734
0712 077	42 x 1,5	23.9	604.8	875
0712 078	50 x 1,5	26.1	720.0	1013
0712 079	56 x 1,5	26.9	806.4	1100
0712 080	61 x 1,5	27.7	878.4	1181
0712 081	65 x 1,5	28.5	936.0	1254
0712 082	75 x 1,5	30.8	1080.0	1427
0712 083	80 x 1,5	31.7	1152.0	1528
0712 084	100 x 1,5	35.0	1440.0	1899
0712 085	2 x 2,5	8.1	48.0	83
0712 086	3 x 2,5	8.6	72.0	110
0712 087	4 x 2,5	9.4	96.0	138
0712 088	5 x 2,5	10.5	120.0	178
0712 089	6 x 2,5	11.5	144.0	214
0712 090	7 x 2,5	11.5	168.0	226
0712 091	10 x 2,5	15.0	240.0	330
0712 092	12 x 2,5	15.5	288.0	382
0712 093	16 x 2,5	17.2	384.0	496
0712 094	20 x 2,5	19.5	480.0	640
0712 095	25 x 2,5	22.2	600.0	786
0712 096	32 x 2,5	24.3	768.0	986
0712 097	37 x 2,5	25.3	888.0	1097

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0712 098	42 x 2,5	27.2	1008.0	1268
0712 099	50 x 2,5	29.7	1200.0	1475
0712 100	56 x 2,5	30.6	1344.0	1609
0712 101	61 x 2,5	31.8	1464.0	1749
0712 102	65 x 2,5	32.7	1560.0	1859
0712 103	75 x 2,5	35.4	1800.0	2120
0712 104	80 x 2,5	36.2	1920.0	2249
0712 105	100 x 2,5	40.2	2400.0	2824
0712 106	2 x 4,0	9.1	76.8	112
0712 107	3 x 4,0	9.6	115.2	151
0712 108	4 x 4,0	10.8	153.6	198
0712 109	5 x 4,0	11.8	192.0	248
0712 110	7 x 4,0	13.1	268.8	326
0712 111	3 x 6,0	11.1	172.8	214
0712 112	4 x 6,0	12.4	230.4	280
0712 113	5 x 6,0	13.6	288.0	352
0712 114	7 x 6,0	15.0	403.2	463
0712 115	3 x 10,0	14.1	288.0	356
0712 116	4 x 10,0	15.5	384.0	458
0712 117	5 x 10,0	16.9	480.0	580
0712 118	7 x 10,0	19.0	672.0	778
0712 119	3 x 16,0	16.0	460.8	533
0712 120	4 x 16,0	17.6	614.4	690
0712 121	5 x 16,0	19.8	768.0	893
0712 122	7 x 16,0	21.7	1075.2	1176
0712 123	3 x 25,0	19.5	720.0	785
0712 124	4 x 25,0	21.6	960.0	1040
0712 125	5 x 25,0	23.7	1200.0	1318
0712 126	3 x 35,0	21.9	1008.0	1059
0712 127	4 x 35,0	24.1	1344.0	1376
0712 128	5 x 35,0	26.6	1680.0	1744
0712 129	3 x 50,0	26.7	1440.0	1522
0712 130	4 x 50,0	29.9	1920.0	2000
0712 131	5 x 50,0	32.8	2400.0	2547

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXS-P-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXS-P-Nr 0,6/1 kV** are multipair cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - identification of pairs: black and brown insulation and white pair numbers printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXS-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXS-P-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXS-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLXS-P-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	45	50	50	55	60

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Conductor temperature limit in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 250°C		

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1706 001	2 x 2 x 0,5	8.9	19.2	74
1706 002	3 x 2 x 0,5	9.4	28.8	82
1706 003	4 x 2 x 0,5	10.6	38.4	106
1706 004	5 x 2 x 0,5	11.6	48.0	124
1706 005	6 x 2 x 0,5	12.9	57.6	150
1706 006	8 x 2 x 0,5	13.7	76.8	182
1706 007	10 x 2 x 0,5	15.8	96.0	228
1706 008	12 x 2 x 0,5	16.5	115.2	260
1706 009	16 x 2 x 0,5	19.1	153.6	347
1706 010	18 x 2 x 0,5	20.1	172.8	382
1706 011	24 x 2 x 0,5	23.2	230.4	506
1706 012	2 x 2 x 0,75	9.5	28.8	86
1706 013	3 x 2 x 0,75	10.3	43.2	104
1706 014	4 x 2 x 0,75	11.3	57.6	127
1706 015	5 x 2 x 0,75	12.6	72.0	157
1706 016	8 x 2 x 0,75	14.9	115.2	232
1706 017	10 x 2 x 0,75	16.9	144.0	280
1706 018	12 x 2 x 0,75	17.7	172.8	322
1706 019	16 x 2 x 0,75	20.5	230.4	430
1706 020	18 x 2 x 0,75	21.6	259.2	474
1706 021	2 x 2 x 1,0	10.3	38.4	108
1706 022	3 x 2 x 1,0	10.9	57.6	123
1706 023	4 x 2 x 1,0	12.2	76.8	158
1706 024	5 x 2 x 1,0	13.5	96.0	188
1706 025	8 x 2 x 1,0	15.9	153.6	279

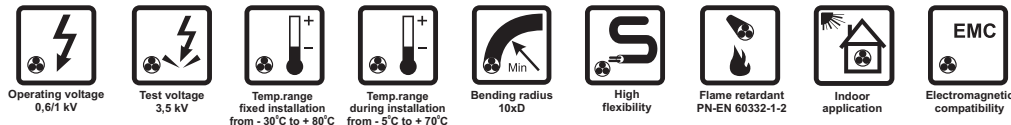
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1706 026	10 x 2 x 1,0	18.1	192.0	339
1706 027	12 x 2 x 1,0	19.3	230.4	409
1706 028	14 x 2 x 1,0	20.7	268.8	466
1706 029	16 x 2 x 1,0	21.9	307.2	521
1706 030	18 x 2 x 1,0	23.5	345.6	600
1706 031	2 x 2 x 1,5	11.2	57.6	131
1706 032	3 x 2 x 1,5	11.9	86.4	155
1706 033	4 x 2 x 1,5	13.4	115.2	201
1706 034	5 x 2 x 1,5	14.9	144.0	248
1706 035	6 x 2 x 1,5	16.3	172.8	289
1706 036	8 x 2 x 1,5	17.4	230.4	361
1706 037	10 x 2 x 1,5	20.2	288.0	461
1706 038	12 x 2 x 1,5	21.2	345.6	533
1706 039	16 x 2 x 1,5	24.4	460.8	705
1706 040	2 x 2 x 2,5	12.9	96.0	190
1706 041	3 x 2 x 2,5	13.7	144.0	224
1706 042	4 x 2 x 2,5	15.3	192.0	289
1706 043	5 x 2 x 2,5	16.9	240.0	349
1706 044	7 x 2 x 2,5	18.9	336.0	478
1706 045	10 x 2 x 2,5	23.4	480.0	681
1706 046	12 x 2 x 2,5	24.5	576.0	787
1706 047	14 x 2 x 2,5	26.2	672.0	900
1706 048	16 x 2 x 2,5	27.8	768.0	1013

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXSekw-Nr 0,6/1 kV TECHNOKONTROL YKSLXSekwżo-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXSekw-Nr 0,6/1 kV** and **TECHNOKONTROL YKSLXSekwżo-Nr 0,6/1 kV** are overall shielded cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **YKSLXSekwżo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXSekw-Nr-O 0,6/1 kV** and **TECHNOKONTROL YKSLXSekwżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXSekw-Nr 0,6/1 kV** and **TECHNOKONTROL HKSLXSekwżo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXSekw-Nr 0,6/1 kV** and **TECHNOKONTROL YvKSLXSekwżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YKSLXSekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLXSekwżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Capacitance between conductors at 1 kHz, appr.	nF/km	50	50	50	60	60	70
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386
Capacitance between conductors at 1 kHz, appr.	nF/km	70	70	70	70	70	70

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	from - 30 to + 80°C
Voltage test	3.5 kV rms	for fixed installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	for movable installation	
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 250°C		

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0713 007	2 x 0,5	6.1	12.0	42
0713 012	3 x 0,5	6.4	16.8	50
0713 008	4 x 0,5	6.9	21.6	59
0713 013	5 x 0,5	7.5	26.4	72
0713 009	6 x 0,5	8.2	31.2	85
0713 014	7 x 0,5	8.2	36.0	86
0713 015	10 x 0,5	10.5	50.4	122
0713 016	12 x 0,5	10.8	60.0	136
0713 017	16 x 0,5	11.9	79.2	172
0713 018	20 x 0,5	13.4	98.4	220
0713 019	25 x 0,5	15.4	122.4	273
0713 020	32 x 0,5	16.5	156.0	324
0713 021	37 x 0,5	17.1	180.0	353
0713 022	40 x 0,5	17.8	194.4	380
0713 023	2 x 0,75	6.4	19.2	50
0713 024	3 x 0,75	6.8	26.4	61
0713 025	4 x 0,75	7.4	33.6	73
0713 026	5 x 0,75	8.0	40.8	88
0713 027	6 x 0,75	8.7	48.0	104
0713 028	7 x 0,75	8.7	55.2	106
0713 029	10 x 0,75	11.2	76.8	150
0713 030	12 x 0,75	11.5	91.2	169
0713 031	16 x 0,75	13.0	120.0	222
0713 032	20 x 0,75	14.5	148.8	280
0713 033	25 x 0,75	16.5	184.8	340
0713 034	34 x 0,75	18.8	249.6	457
0713 035	2 x 1,0	6.8	24.0	57
0713 001	3 x 1,0	7.2	33.6	71

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0713 036	4 x 1,0	7.8	43.2	85
0713 037	5 x 1,0	8.5	52.8	104
0713 038	6 x 1,0	9.3	62.4	123
0713 039	7 x 1,0	9.3	72.0	126
0713 040	10 x 1,0	11.9	100.8	178
0713 041	12 x 1,0	12.5	120.0	210
0713 042	16 x 1,0	13.8	158.4	267
0713 043	20 x 1,0	15.5	196.8	338
0713 044	25 x 1,0	17.6	244.8	412
0713 045	2 x 1,5	7.3	36.0	70
0713 006	3 x 1,5	7.8	50.4	88
0713 010	4 x 1,5	8.5	64.8	108
0713 003	5 x 1,5	9.2	79.2	132
0713 011	6 x 1,5	10.3	93.6	162
0713 005	7 x 1,5	10.3	108.0	169
0713 046	10 x 1,5	13.2	151.2	237
0713 047	12 x 1,5	13.6	180.0	271
0713 048	16 x 1,5	15.3	237.6	356
0713 049	20 x 1,5	16.9	295.2	441
0713 050	25 x 1,5	19.6	367.2	559
0713 051	2 x 2,5	8.2	55.2	91
0713 002	3 x 2,5	8.7	79.2	119
0713 052	4 x 2,5	9.5	103.2	147
0713 053	5 x 2,5	10.6	127.2	187
0713 054	6 x 2,5	11.6	151.2	224
0713 055	7 x 2,5	11.6	175.2	235
0713 056	10 x 2,5	15.1	247.2	341
0713 057	12 x 2,5	15.6	295.2	392

**TECHNOKONTROL YKSLXSekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YKSLXSekwżo-Nr 0,6/1 kV**

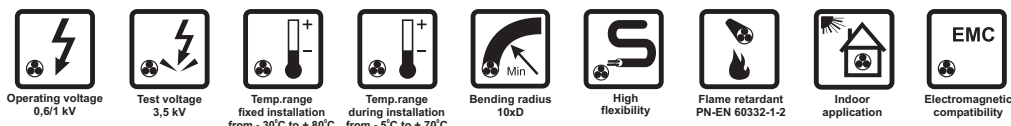
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0713 058	14 x 2,5	16.4	343.2	446
0713 059	16 x 2,5	17.3	391.2	507
0713 060	2 x 4,0	9.2	86.4	123
0713 061	3 x 4,0	9.7	124.8	162
0713 062	4 x 4,0	10.9	163.2	209
0713 063	5 x 4,0	11.9	201.6	260
0713 064	7 x 4,0	13.2	278.4	338
0713 065	3 x 6,0	11.2	182.4	226
0713 066	4 x 6,0	12.5	240.0	292
0713 067	5 x 6,0	13.7	297.6	364
0713 068	7 x 6,0	15.1	412.8	476
0713 069	3 x 10,0	13.5	297.6	360
0713 070	4 x 10,0	15.0	393.6	460
0713 071	5 x 10,0	16.8	489.6	578
0713 072	7 x 10,0	18.8	681.6	772

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0713 073	3 x 16,0	16.1	475.2	549
0713 074	4 x 16,0	17.7	628.8	707
0713 075	5 x 16,0	19.9	782.4	911
0713 076	7 x 16,0	21.8	1089.6	1195
0713 077	3 x 25,0	19.6	734.4	783
0713 078	4 x 25,0	21.7	974.4	1033
0713 079	5 x 25,0	24.1	1214.4	1304
0713 080	3 x 35,0	21.9	1022.4	1052
0713 081	4 x 35,0	24.3	1358.4	1360
0713 082	5 x 35,0	26.9	1694.4	1724
0713 083	3 x 50,0	27.0	1464.0	1480
0713 084	4 x 50,0	30.0	1944.0	1900
0713 085	5 x 50,0	33.5	2424.0	2410

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXSekw-P-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXSekw-P-Nr 0,6/1 kV** are multipair overall shielded cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - identification of pairs: black and brown insulation and white pair numbers printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXSekw-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXSekw-P-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXSekw-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.



## TECHNOKONTROL YKSLXSekw-P-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	50	55	55	60	70

Operating voltage Uo/U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 250°C		

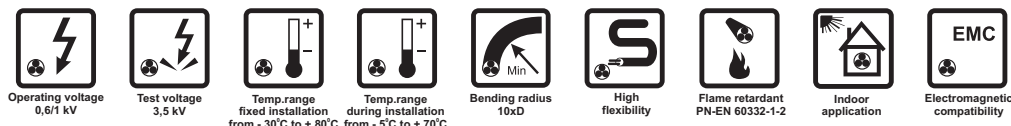
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1707 001	2 x 2 x 0,5	9.0	21.6	79
1707 002	3 x 2 x 0,5	9.5	31.2	87
1707 003	4 x 2 x 0,5	10.7	40.8	111
1707 004	5 x 2 x 0,5	11.7	50.4	130
1707 005	6 x 2 x 0,5	13.0	60.0	156
1707 006	8 x 2 x 0,5	13.8	79.2	188
1707 007	10 x 2 x 0,5	15.9	98.4	235
1707 008	12 x 2 x 0,5	16.6	117.6	267
1707 009	16 x 2 x 0,5	19.2	156.0	355
1707 010	18 x 2 x 0,5	20.2	175.2	389
1707 012	24 x 2 x 0,5	23.3	232.8	515
1707 013	2 x 2 x 0,75	9.6	33.6	93
1707 014	3 x 2 x 0,75	10.4	48.0	111
1707 015	4 x 2 x 0,75	11.4	62.4	135
1707 016	5 x 2 x 0,75	12.7	76.8	165
1707 017	8 x 2 x 0,75	15.0	120.0	240
1707 018	10 x 2 x 0,75	17.0	148.8	289
1707 019	12 x 2 x 0,75	17.8	177.6	331
1707 020	16 x 2 x 0,75	20.6	235.2	440

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1707 021	2 x 2 x 1,0	10.4	43.2	115
1707 022	3 x 2 x 1,0	11.0	62.4	130
1707 023	4 x 2 x 1,0	12.3	81.6	165
1707 024	5 x 2 x 1,0	13.6	100.8	196
1707 025	8 x 2 x 1,0	16.0	158.4	287
1707 026	10 x 2 x 1,0	18.2	196.8	348
1707 027	12 x 2 x 1,0	19.4	235.2	419
1707 028	2 x 2 x 1,5	11.3	64.8	141
1707 011	3 x 2 x 1,5	12.2	93.6	171
1707 029	4 x 2 x 1,5	13.5	122.4	211
1707 030	5 x 2 x 1,5	15.0	151.2	258
1707 031	8 x 2 x 1,5	17.5	237.6	372
1707 032	10 x 2 x 1,5	20.3	295.2	473
1707 033	2 x 2 x 2,5	13.0	103.2	199
1707 034	3 x 2 x 2,5	13.8	151.2	234
1707 035	4 x 2 x 2,5	15.4	199.2	300
1707 036	5 x 2 x 2,5	17.0	247.2	360
1707 037	7 x 2 x 2,5	19.0	343.2	489
1707 038	10 x 2 x 2,5	23.5	487.2	694

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLXSekpekwn-Nr 0,6/1 kV

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YKSLXSekpekwn-Nr 0,6/1 kV** are multipair, pair and overall shielded cables intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - identification of pairs: black and brown insulation and white pair numbers printed on it,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLXSekpekwn-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLXSekpekwn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLXSekpekwn-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YKSLXSekpekwn-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	70	80	90	100	120

Operating voltage Uo/U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 250°C		

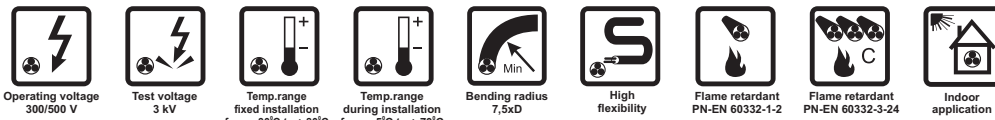
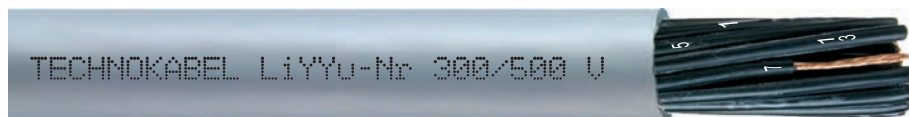
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1365 005	2 x 2 x 0,5	10.9	26.7	101,0
1365 006	3 x 2 x 0,5	11.5	38.8	127,5
1365 007	4 x 2 x 0,5	12.6	50.9	157,0
1365 008	5 x 2 x 0,5	13.9	63.0	187,0
1365 009	6 x 2 x 0,5	15.3	75.2	224,0
1365 010	8 x 2 x 0,5	16.3	99.4	276,0
1365 011	10 x 2 x 0,5	18.9	123.7	352,0
1365 012	12 x 2 x 0,5	19.8	147.9	405,0
1365 013	16 x 2 x 0,5	22.4	196.5	516,3
1365 014	18 x 2 x 0,5	24.0	220.7	592,0
1365 015	24 x 2 x 0,5	27.2	293.5	757,0
1365 016	2 x 2 x 0,75	11.8	43.6	125,0
1365 017	3 x 2 x 0,75	12.4	63.0	160,5
1365 018	4 x 2 x 0,75	13.7	82.5	199,0
1365 019	5 x 2 x 0,75	15.3	101.9	245,0
1365 020	8 x 2 x 0,75	17.7	160.1	355,0
1365 021	10 x 2 x 0,75	19.6	198.9	444,5
1365 022	12 x 2 x 0,75	21.6	237.8	521,0
1365 023	16 x 2 x 0,75	24.9	315.4	690,0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1365 024	2 x 2 x 1,0	12.1	53.4	137,5
1365 025	3 x 2 x 1,0	12.7	77.7	177,6
1365 026	4 x 2 x 1,0	14.1	102.0	222,4
1365 027	5 x 2 x 1,0	15.7	126.3	274,2
1365 028	8 x 2 x 1,0	18.3	199.2	401,1
1365 029	10 x 2 x 1,0	21.2	247.8	508,6
1365 030	12 x 2 x 1,0	22.3	296.4	590,3
1365 003	2 x 2 x 1,5	13.1	78.7	170,5
1365 031	3 x 2 x 1,5	13.8	114.4	224,5
1365 032	4 x 2 x 1,5	15.5	150.2	289,5
1365 004	5 x 2 x 1,5	17.1	185.9	348,5
1365 033	8 x 2 x 1,5	20.3	293.1	533,5
1365 034	10 x 2 x 1,5	23.6	364.6	672,5
1365 035	2 x 2 x 2,5	14.0	116.9	219,0
1365 036	3 x 2 x 2,5	15.0	171.7	302,0
1365 037	4 x 2 x 2,5	16.5	226.5	382,0
1365 038	5 x 2 x 2,5	18.2	281.4	465,0
1365 039	7 x 2 x 2,5	20.3	445.9	636,0
1365 040	10 x 2 x 2,5	25.2	555.6	903,5

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEKS LiYYu-Nr 300/500 V TECHNOFLEKS LiYYużo-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOFLEKS LiYYu-Nr 300/500 V** and **TECHNOFLEKS LiYYużo-Nr 300/500 V** are flexible, flame retardant cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor in **TECHNOFLEKS LiYYużo-Nr 300/500 V** cable,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYużo-Nr 300/500 V** cable,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEKS LiYYu-Nr-O 300/500 V** and **TECHNOFLEKS LiYYużo-Nr-O 300/500 V** – cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOFLEKS LiY11Y-Nr 300/500 V** and **TECHNOFLEKS LiY11Yżo-Nr 300/500 V** – polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oil, petrol, bacteria and ultraviolet radiation.

**TECHNOFLEKS LiHH-Nr 300/500 V** and **TECHNOFLEKS LiHHżo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## TECHNOFLEKS LiYYu-Nr 300/500 V TECHNOFLEKS LiYYużo-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1708 001	2 x 0,5	4.6	9.6	31
1708 002	3 x 0,5	4.9	14.4	37
1708 003	4 x 0,5	5.3	19.2	45
1708 004	5 x 0,5	5.8	24.0	55
1708 005	6 x 0,5	6.3	28.8	65
1708 006	7 x 0,5	6.3	33.6	67
1708 007	8 x 0,5	6.8	38.4	78
1708 008	10 x 0,5	7.9	48.0	94
1708 009	12 x 0,5	8.2	57.6	107
1708 010	14 x 0,5	8.6	67.2	121
1708 011	16 x 0,5	9.1	76.8	137
1708 012	18 x 0,5	10.0	86.4	162
1708 013	19 x 0,5	10.0	91.2	164
1708 014	21 x 0,5	10.5	100.8	181
1708 015	24 x 0,5	11.6	115.2	205
1708 016	25 x 0,5	12.1	120.0	224
1708 017	27 x 0,5	12.1	129.6	229
1708 018	30 x 0,5	12.5	144.0	250
1708 019	33 x 0,5	13.0	158.4	273
1708 020	34 x 0,5	13.5	163.2	291
1708 021	37 x 0,5	13.5	177.6	298
1708 022	40 x 0,5	14.2	192.0	328
1708 023	44 x 0,5	15.3	211.2	359
1708 024	48 x 0,5	15.6	230.4	385
1708 025	50 x 0,5	16.0	240.0	406
1708 026	56 x 0,5	16.5	268.8	441
1708 027	60 x 0,5	17.0	288.0	470
1708 028	2 x 0,75	5.0	14.4	38
1708 029	3 x 0,75	5.2	21.6	45
1708 030	4 x 0,75	5.7	28.8	56
1708 031	5 x 0,75	6.2	36.0	68
1708 032	6 x 0,75	6.8	43.2	81

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1708 033	7 x 0,75	6.8	50.4	85
1708 034	8 x 0,75	7.3	57.6	98
1708 035	10 x 0,75	8.6	72.0	120
1708 036	12 x 0,75	8.9	86.4	137
1708 037	14 x 0,75	9.8	100.8	164
1708 038	16 x 0,75	10.3	115.2	185
1708 039	18 x 0,75	10.9	129.6	207
1708 040	19 x 0,75	10.9	136.8	211
1708 041	21 x 0,75	11.4	151.2	233
1708 042	24 x 0,75	12.9	172.8	270
1708 043	25 x 0,75	13.2	180	288
1708 044	27 x 0,75	13.2	194.4	296
1708 045	30 x 0,75	13.6	216.0	323
1708 046	34 x 0,75	14.9	244.8	382
1708 047	37 x 0,75	14.9	266.4	393
1708 048	40 x 0,75	15.5	288.0	425
1708 049	44 x 0,75	16.7	316.8	465
1708 050	48 x 0,75	17.0	345.6	500
1708 051	50 x 0,75	17.5	360.0	528
1708 052	56 x 0,75	18.0	403.2	574
1708 053	60 x 0,75	18.8	432.0	622
1708 054	2 x 1,0	5.3	19.2	45
1708 055	3 x 1,0	5.6	28.8	55
1708 056	4 x 1,0	6.2	38.4	68
1708 057	5 x 1,0	6.7	48.0	84
1708 058	6 x 1,0	7.3	57.6	100
1708 059	7 x 1,0	7.3	67.2	105
1708 060	8 x 1,0	7.9	76.8	122
1708 061	10 x 1,0	9.3	96.0	149
1708 062	12 x 1,0	10.1	115.2	180
1708 063	14 x 1,0	10.6	134.4	204
1708 064	16 x 1,0	11.1	153.6	230

## TECHNOFLEKS LiYYu-Nr 300/500 V TECHNOFLEKS LiYYużo-Nr 300/500 V

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1708 065	18 x 1,0	12.0	172.8	263
1708 066	19 x 1,0	12.0	182.4	269
1708 067	21 x 1,0	12.6	201.6	297
1708 068	24 x 1,0	14.2	230.4	343
1708 069	27 x 1,0	14.5	259.2	376
1708 070	30 x 1,0	15.0	288.0	411
1708 071	34 x 1,0	16.2	326.4	478
1708 072	37 x 1,0	16.2	355.2	494
1708 073	40 x 1,0	16.8	384.0	534
1708 074	44 x 1,0	18.4	422.4	593
1708 075	48 x 1,0	18.7	460.8	637
1708 076	50 x 1,0	19.2	480.0	673
1708 077	60 x 1,0	20.4	576.0	783
1708 078	2 x 1,5	5.9	28.8	59
1708 079	3 x 1,5	6.2	43.2	72
1708 080	4 x 1,5	6.8	57.6	90
1708 081	5 x 1,5	7.5	72.0	111
1708 082	6 x 1,5	8.1	86.4	132
1708 083	7 x 1,5	8.1	100.8	140
1708 084	8 x 1,5	8.8	115.2	163
1708 085	10 x 1,5	10.8	144.0	210
1708 086	12 x 1,5	11.2	172.8	240
1708 087	14 x 1,5	12.0	201.6	279
1708 088	16 x 1,5	12.6	230.4	315
1708 089	18 x 1,5	13.3	259.2	353
1708 090	19 x 1,5	13.3	273.6	362
1708 091	21 x 1,5	14.2	302.4	407
1708 092	24 x 1,5	15.8	345.6	462
1708 093	27 x 1,5	16.1	388.8	508
1708 094	30 x 1,5	16.7	432.0	557
1708 095	34 x 1,5	18.1	489.6	646
1708 096	37 x 1,5	18.1	532.8	672
1708 097	40 x 1,5	19.0	576.0	735
1708 098	48 x 1,5	20.9	691.2	867
1708 099	50 x 1,5	21.5	720.0	915
1708 100	60 x 1,5	23.0	864.0	1079
1708 101	2 x 2,5	6.7	48.0	82
1708 102	3 x 2,5	7.1	72.0	104
1708 103	4 x 2,5	7.8	96.0	130
1708 104	5 x 2,5	8.6	120.0	162
1708 105	6 x 2,5	9.8	144.0	202
1708 106	7 x 2,5	9.8	168.0	216
1708 107	8 x 2,5	10.7	192.0	251
1708 108	10 x 2,5	12.7	240.0	313
1708 109	12 x 2,5	13.2	288.0	361
1708 110	14 x 2,5	13.9	336.0	412

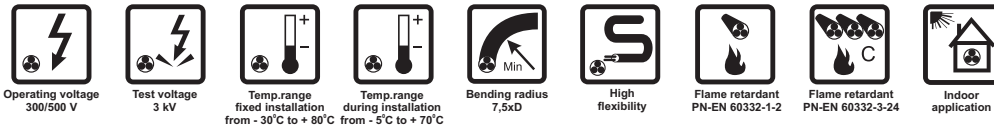
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1708 111	16 x 2,5	14.8	384.0	474
1708 112	18 x 2,5	15.7	432.0	532
1708 113	19 x 2,5	15.7	456.0	546
1708 114	21 x 2,5	16.5	504.0	605
1708 115	25 x 2,5	19.0	600.0	739
1708 116	27 x 2,5	19.0	648.0	766
1708 117	30 x 2,5	19.7	720.0	841
1708 118	34 x 2,5	21.3	816.0	976
1708 119	37 x 2,5	21.3	888.0	1018
1708 120	40 x 2,5	22.1	960.0	1102
1708 121	44 x 2,5	24.2	1056.0	1218
1708 122	50 x 2,5	25.3	1200.0	1386
1708 123	60 x 2,5	26.9	1440.0	1625
1708 124	2 x 4,0	8.1	76.8	123
1708 125	3 x 4,0	8.6	115.2	157
1708 126	4 x 4,0	9.9	153.6	205
1708 127	5 x 4,0	10.9	192.0	255
1708 128	7 x 4,0	12.1	268.8	333
1708 129	3 x 6,0	10.4	172.8	235
1708 130	4 x 6,0	11.5	230.4	296
1708 131	5 x 6,0	12.8	288.0	374
1708 132	7 x 6,0	14.3	403.2	491
1708 133	3 x 10,0	13.2	288.0	396
1708 134	4 x 10,0	14.8	384.0	507
1708 135	5 x 10,0	16.3	480.0	632
1708 136	7 x 10,0	17.9	672.0	824
1708 137	3 x 16,0	15.8	460.8	603
1708 138	4 x 16,0	17.4	614.4	763
1708 139	5 x 16,0	19.4	768.0	961
1708 140	7 x 16,0	21.3	1075.2	1260
1708 141	3 x 25,0	18.5	720.0	872
1708 142	4 x 25,0	20.5	960.0	1110
1708 143	5 x 25,0	22.8	1200.0	1396
1708 144	3 x 35,0	21.8	1008.0	1213
1708 145	4 x 35,0	24.4	1344.0	1557
1708 146	5 x 35,0	27.0	1680.0	1950
1708 147	3 x 50,0	27.4	1440.0	1806
1708 148	4 x 50,0	30.4	1920.0	2296
1708 149	5 x 50,0	33.9	2400.0	2896

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YnKSLY-Nr 300/500 V**  
**TECHNOKONTROL YnKSLYżo-Nr 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLY-Nr 300/500 V** and **TECHNOKONTROL YnKSLYżo-Nr 300/500 V** are flexible, flame retardant cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YnKSLYżo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLY-Nr-O 300/500 V** and **TECHNOKONTROL YnKSLYżo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLY-Nr 300/500 V** and **TECHNOKONTROL YnvKSLYżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLH-Nr 300/500 V** and **TECHNOKONTROL HKSLHżo-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## TECHNOKONTROL YnKSLY-Nr 300/500 V TECHNOKONTROL YnKSLYżo-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0371 046	2 x 0,5	4.7	9.6	28
0371 047	3 x 0,5	5.0	14.4	35
0371 048	4 x 0,5	5.4	19.2	43
0371 021	5 x 0,5	5.9	24.0	53
0371 049	6 x 0,5	6.4	28.8	62
0371 006	7 x 0,5	6.4	33.6	65
0371 050	8 x 0,5	6.9	38.4	76
0371 051	10 x 0,5	8.0	48.0	90
0371 052	12 x 0,5	8.3	57.6	104
0371 053	14 x 0,5	8.7	67.2	117
0371 054	16 x 0,5	9.2	76.8	134
0371 055	20 x 0,5	10.6	96.0	177
0371 056	21 x 0,5	10.6	100.8	180
0371 057	25 x 0,5	12.2	120.0	222
0371 058	32 x 0,5	13.1	153.6	268
0371 059	37 x 0,5	13.6	177.6	297
0371 060	42 x 0,5	14.8	201.6	350
0371 061	50 x 0,5	16.1	240.0	405
0371 062	56 x 0,5	16.6	268.8	440
0371 063	61 x 0,5	17.1	292.8	472
0371 022	2 x 0,75	5.1	14.4	34
0371 023	3 x 0,75	5.3	21.6	43
0371 011	4 x 0,75	5.8	28.8	53
0371 014	5 x 0,75	6.3	36.0	66
0371 064	6 x 0,75	6.9	43.2	79
0371 019	7 x 0,75	6.9	50.4	83
0371 013	8 x 0,75	7.4	57.6	97
0371 065	10 x 0,75	8.7	72.0	116
0371 066	12 x 0,75	9.0	86.4	134
0371 067	14 x 0,75	9.9	100.8	162
0371 039	16 x 0,75	10.4	115.2	184

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0371 068	20 x 0,75	11.5	144.0	228
0371 015	21 x 0,75	11.5	151.2	233
0371 069	25 x 0,75	13.3	180.0	287
0371 070	32 x 0,75	14.5	230.4	357
0371 071	37 x 0,75	15.0	266.4	395
0371 072	42 x 0,75	16.1	302.4	456
0371 073	50 x 0,75	17.6	360.0	530
0371 004	2 x 1,0	5.4	19.2	40
0371 012	3 x 1,0	5.7	28.8	52
0371 005	4 x 1,0	6.3	38.4	65
0371 018	5 x 1,0	6.8	48.0	81
0371 017	6 x 1,0	7.4	57.6	97
0371 074	7 x 1,0	7.4	67.2	103
0371 040	8 x 1,0	8.0	76.8	119
0371 025	10 x 1,0	9.8	96.0	153
0371 041	12 x 1,0	10.2	115.2	177
0371 027	14 x 1,0	10.7	134.4	201
0371 042	16 x 1,0	11.2	153.6	228
0371 075	20 x 1,0	12.7	192.0	291
0371 016	21 x 1,0	12.7	201.6	297
0371 076	25 x 1,0	14.6	240.0	364
0371 077	32 x 1,0	15.7	307.2	445
0371 078	37 x 1,0	16.3	355.2	495
0371 079	42 x 1,0	17.5	403.2	571
0371 080	50 x 1,0	19.3	480.0	675
0371 002	2 x 1,5	6.0	28.8	51
0371 007	3 x 1,5	6.3	43.2	67
0371 001	4 x 1,5	6.9	57.6	85
0371 030	5 x 1,5	7.6	72.0	106
0371 026	6 x 1,5	8.2	86.4	127



**TECHNOKONTROL YnKSLY-Nr 300/500 V**  
**TECHNOKONTROL YnKSLYżo-Nr 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0371 034	7 x 1,5	8.2	100.8	136
0371 010	8 x 1,5	8.9	115.2	159
0371 033	10 x 1,5	10.9	144.0	201
0371 029	12 x 1,5	11.3	172.8	234
0371 003	14 x 1,5	12.1	201.6	273
0371 035	16 x 1,5	12.7	230.4	311
0371 081	20 x 1,5	14.3	288.0	395
0371 082	21 x 1,5	14.3	302.4	404
0371 083	25 x 1,5	16.2	360.0	484
0371 084	32 x 1,5	17.5	460.8	596
0371 085	37 x 1,5	18.4	532.8	676
0371 086	42 x 1,5	19.8	604.8	779
0371 087	50 x 1,5	21.6	720.0	909
0371 037	2 x 2,5	6.8	48.0	71
0371 088	3 x 2,5	7.2	72.0	96
0371 008	4 x 2,5	7.9	96.0	123
0371 089	5 x 2,5	8.7	120.0	154
0371 009	6 x 2,5	9.9	144.0	196
0371 031	7 x 2,5	9.9	168.0	210
0371 043	8 x 2,5	10.8	192.0	245
0371 036	10 x 2,5	12.8	240.0	301
0371 044	12 x 2,5	13.3	288.0	351
0371 090	14 x 2,5	14.2	336.0	410
0371 091	16 x 2,5	14.9	384.0	466
0371 092	20 x 2,5	16.6	480.0	583
0371 093	21 x 2,5	16.6	504.0	597
0371 094	25 x 2,5	19.1	600.0	729
0371 095	2 x 4,0	8.2	76.8	103
0371 096	3 x 4,0	8.7	115.2	143

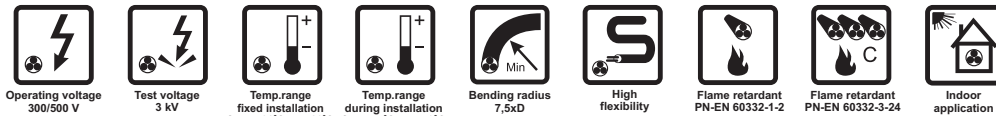
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0371 045	4 x 4,0	10.0	153.6	194
0371 097	5 x 4,0	11.0	192.0	243
0371 098	7 x 4,0	12.2	268.8	322
0371 099	3 x 6,0	10.5	172.8	216
0371 020	4 x 6,0	11.6	230.4	278
0371 100	5 x 6,0	12.9	288.0	357
0371 101	7 x 6,0	14.4	403.2	474
0371 102	3 x 10,0	13.3	288.0	361
0371 103	4 x 10,0	14.9	384.0	475
0371 104	5 x 10,0	16.4	480.0	600
0371 105	7 x 10,0	18.0	672.0	790
0371 106	3 x 16,0	15.9	460.8	549
0371 107	4 x 16,0	17.5	614.4	713
0371 108	5 x 16,0	19.5	768.0	913
0371 109	7 x 16,0	21.4	1075.2	1211
0371 110	3 x 25,0	18.6	720.0	795
0371 111	4 x 25,0	20.6	960.0	1036
0371 112	5 x 25,0	22.9	1200.0	1325
0371 113	3 x 35,0	21.9	1008.0	1097
0371 114	4 x 35,0	24.5	1344.0	1447
0371 115	5 x 35,0	27.1	1680.0	1839
0371 116	3 x 50,0	27.5	1440.0	1608
0371 117	4 x 50,0	30.5	1920.0	2107
0371 118	5 x 50,0	34.0	2400.0	2707

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YnKSLY-P 300/500 V TECHNOKONTROL YnKSLY-P-Nr 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**TECHNOKONTROL YnKSLY-P 300/500 V** and **TECHNOKONTROL YnKSLY-P-Nr 300/500 V** are multipair flexible, flame retardant cables designed for control, protection and monitoring systems or power supply, all in power engineering.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YnKSLY-P 300/500 V** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YnKSLY-P-Nr 300/500 V** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YnKSLY-P-O 300/500 V** and **TECHNOKONTROL YnKSLY-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLY-P 300/500 V** and **TECHNOKONTROL YnvKSLY-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLH-P 300/500 V** and **TECHNOKONTROL HKSLHP-Nr 300/500 V** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YnKSLY-P 300/500 V**  
**TECHNOKONTROL YnKSLY-P-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-17

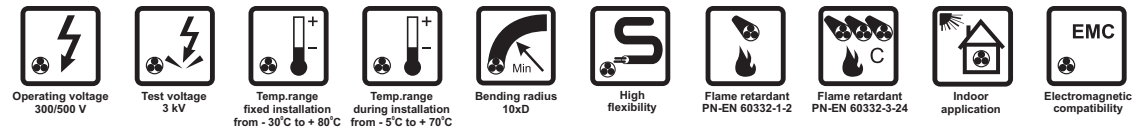
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0372 008	2 x 2 x 0,5	7.0	19.2	53
0372 009	3 x 2 x 0,5	7.4	28.8	63
0372 010	4 x 2 x 0,5	8.2	38.4	79
0372 011	5 x 2 x 0,5	9.0	48.0	94
0372 012	6 x 2 x 0,5	10.2	57.6	120
0372 013	7 x 2 x 0,5	10.2	67.2	133
0372 014	8 x 2 x 0,5	10.9	76.8	148
0372 015	10 x 2 x 0,5	12.6	96.0	187
0372 016	12 x 2 x 0,5	13.1	115.2	214
0372 017	14 x 2 x 0,5	14.2	134.4	251
0372 018	16 x 2 x 0,5	15.1	153.6	282
0372 019	18 x 2 x 0,5	15.8	172.8	311
0372 020	20 x 2 x 0,5	16.6	192.0	340
0372 021	24 x 2 x 0,5	18.0	230.4	398
0372 022	25 x 2 x 0,5	18.5	240.0	422
0372 023	27 x 2 x 0,5	19.1	259.2	451
0372 024	30 x 2 x 0,5	20.0	288.0	494
0372 025	31 x 2 x 0,5	20.3	297.6	508
0372 026	33 x 2 x 0,5	20.9	316.8	537
0372 005	2 x 2 x 0,75	7.6	28.8	69
0372 027	3 x 2 x 0,75	8.1	43.2	80
0372 028	4 x 2 x 0,75	8.9	57.6	100
0372 029	5 x 2 x 0,75	10.2	72.0	131
0372 030	7 x 2 x 0,75	11.1	100.8	169
0372 031	8 x 2 x 0,75	12.1	115.2	196
0372 032	10 x 2 x 0,75	13.7	144.0	239
0372 033	12 x 2 x 0,75	14.6	172.8	284
0372 034	16 x 2 x 0,75	16.5	230.4	364
0372 035	18 x 2 x 0,75	17.3	259.2	403
0372 036	20 x 2 x 0,75	18.4	288.0	452
0372 037	24 x 2 x 0,75	19.9	345.6	530
0372 038	25 x 2 x 0,75	20.2	360.0	549
0372 039	27 x 2 x 0,75	20.9	388.8	587

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0372 040	2 x 2 x 1,0	8.2	38.4	81
0372 041	3 x 2 x 1,0	8.7	57.6	97
0372 042	4 x 2 x 1,0	10.0	76.8	133
0372 002	5 x 2 x 1,0	11.0	96.0	160
0372 003	7 x 2 x 1,0	12.3	134.4	215
0372 004	10 x 2 x 1,0	15.1	192.0	303
0372 043	12 x 2 x 1,0	15.8	230.4	352
0372 044	14 x 2 x 1,0	16.9	268.8	402
0372 045	16 x 2 x 1,0	17.9	307.2	453
0372 001	18 x 2 x 1,0	19.0	345.6	512
0372 046	20 x 2 x 1,0	19.9	384.0	562
0372 047	24 x 2 x 1,0	21.6	460.8	661
0372 048	2 x 2 x 1,5	9.2	57.6	103
0372 049	3 x 2 x 1,5	10.1	86.4	138
0372 050	4 x 2 x 1,5	11.1	115.2	173
0372 051	5 x 2 x 1,5	12.5	144.0	216
0372 052	7 x 2 x 1,5	13.6	201.6	284
0372 053	10 x 2 x 1,5	16.8	288.0	402
0372 054	12 x 2 x 1,5	17.6	345.6	468
0372 055	14 x 2 x 1,5	19.0	403.2	547
0372 056	16 x 2 x 1,5	20.2	460.8	617
0372 057	20 x 2 x 1,5	22.3	576.0	754
0372 058	2 x 2 x 2,5	11.0	96.0	158
0372 059	3 x 2 x 2,5	11.7	144.0	198
0372 060	4 x 2 x 2,5	13.1	192.0	258
0372 061	5 x 2 x 2,5	14.7	240.0	321
0372 062	7 x 2 x 2,5	16.0	336.0	426
0372 063	10 x 2 x 2,5	19.7	480.0	602
0372 064	12 x 2 x 2,5	20.7	576.0	704
0372 065	14 x 2 x 2,5	22.2	672.0	810
0372 066	16 x 2 x 2,5	23.7	768.0	924

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YnKSLYekw-Nr 300/500 V**  
**TECHNOKONTROL YnKSLYekwżo-Nr 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLYekw-Nr 300/500 V** and **TECHNOKONTROL YnKSLYekwżo-Nr 300/500 V** are flexible, overall shielded, flame retardant cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YnKSLYekwżo-Nr 300/500 V** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLYekw-Nr-O 300/500 V** and **TECHNOKONTROL YnKSLYekwżo-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLYekw-Nr 300/500 V** and **TECHNOKONTROL YnvKSLYekwżo-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL YnKSLYekw-Nr 300/500 V TECHNOKONTROL YnKSLYekwżo-Nr 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0375 016	2 x 0,5	4.8	12.0	32
0375 013	3 x 0,5	5.1	16.8	39
0375 040	4 x 0,5	5.5	21.6	47
0375 055	5 x 0,5	6.0	26.4	56
0375 025	6 x 0,5	6.5	31.2	67
0375 056	7 x 0,5	6.5	36.0	69
0375 057	8 x 0,5	7.0	40.8	80
0375 014	10 x 0,5	8.1	50.4	94
0375 054	12 x 0,5	8.4	60.0	108
0375 058	14 x 0,5	8.8	69.6	122
0375 048	16 x 0,5	9.3	79.2	138
0375 059	20 x 0,5	10.7	98.4	182
0375 060	21 x 0,5	10.7	103.2	185
0375 061	25 x 0,5	12.3	122.4	228
0375 062	32 x 0,5	13.2	156.0	274
0375 063	37 x 0,5	13.7	180.0	303
0375 064	42 x 0,5	14.9	204.0	356
0375 065	50 x 0,5	16.2	242.4	412
0375 066	56 x 0,5	16.7	271.2	447
0375 001	2 x 0,75	5.2	19.2	40
0375 024	3 x 0,75	5.4	26.4	49
0375 002	4 x 0,75	5.9	33.6	59
0375 044	5 x 0,75	6.4	40.8	72
0375 021	6 x 0,75	7.0	48.0	86
0375 028	7 x 0,75	7.0	55.2	90
0375 029	8 x 0,75	7.5	62.4	103
0375 045	10 x 0,75	8.8	76.8	122
0375 022	12 x 0,75	9.1	91.2	140
0375 023	14 x 0,75	10.0	105.6	170
0375 003	16 x 0,75	10.5	120.0	191
0375 053	20 x 0,75	11.6	148.8	236
0375 067	21 x 0,75	11.6	156.0	240

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0375 068	25 x 0,75	13.4	184.8	295
0375 049	32 x 0,75	14.6	235.2	365
0375 004	37 x 0,75	15.1	271.2	404
0375 069	42 x 0,75	16.2	307.2	465
0375 070	50 x 0,75	17.7	364.8	539
0375 005	2 x 1,0	5.5	24.0	46
0375 008	3 x 1,0	5.8	33.6	58
0375 006	4 x 1,0	6.4	43.2	71
0375 007	5 x 1,0	6.9	52.8	87
0375 026	6 x 1,0	7.5	62.4	103
0375 011	7 x 1,0	7.5	72.0	109
0375 031	8 x 1,0	8.1	81.6	126
0375 012	10 x 1,0	9.9	100.8	160
0375 009	12 x 1,0	10.3	120.0	184
0375 010	14 x 1,0	10.8	139.2	208
0375 030	16 x 1,0	11.3	158.4	236
0375 032	20 x 1,0	12.8	196.8	299
0375 071	21 x 1,0	12.8	206.4	304
0375 035	25 x 1,0	14.7	244.8	373
0375 034	32 x 1,0	15.8	312.0	453
0375 042	37 x 1,0	16.4	360.0	504
0375 072	42 x 1,0	17.6	408.0	580
0375 073	50 x 1,0	19.4	484.8	684
0375 018	2 x 1,5	6.1	36.0	58
0375 015	3 x 1,5	6.4	50.4	75
0375 037	4 x 1,5	7.0	64.8	93
0375 020	5 x 1,5	7.7	79.2	114
0375 074	6 x 1,5	8.3	93.6	136
0375 017	7 x 1,5	8.3	108.0	145
0375 051	8 x 1,5	9.0	122.4	167
0375 039	10 x 1,5	11.0	151.2	211

**TECHNOKONTROL YnKSLYekw-Nr 300/500 V**  
**TECHNOKONTROL YnKSLYekwżo-Nr 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0375 036	12 x 1,5	11.4	180.0	243
0375 075	14 x 1,5	12.2	208.8	283
0375 076	16 x 1,5	12.8	237.6	320
0375 077	20 x 1,5	14.4	295.2	405
0375 078	21 x 1,5	14.4	309.6	414
0375 079	25 x 1,5	16.3	367.2	495
0375 080	32 x 1,5	17.6	468.0	607
0375 081	37 x 1,5	18.5	540.0	687
0375 082	42 x 1,5	19.9	612.0	790
0375 083	50 x 1,5	21.7	727.2	921
0375 019	2 x 2,5	6.9	55.2	79
0375 046	3 x 2,5	7.3	79.2	104
0375 038	4 x 2,5	8.0	103.2	131
0375 084	5 x 2,5	8.8	127.2	163
0375 085	6 x 2,5	10.0	151.2	205
0375 086	7 x 2,5	10.0	175.2	219
0375 087	8 x 2,5	10.9	199.2	254
0375 088	10 x 2,5	12.9	247.2	311
0375 089	12 x 2,5	13.4	295.2	361
0375 090	14 x 2,5	14.3	343.2	420
0375 091	16 x 2,5	15.0	391.2	477
0375 092	2 x 4,0	8.3	86.4	114
0375 093	3 x 4,0	8.8	124.8	153
0375 094	4 x 4,0	10.1	163.2	205
0375 095	5 x 4,0	11.1	201.6	254
0375 096	7 x 4,0	12.3	278.4	334

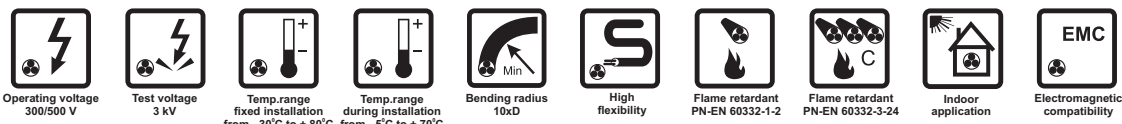
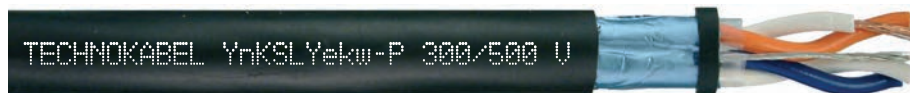
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0375 097	3 x 6,0	10.6	182.4	227
0375 098	4 x 6,0	11.7	240.0	289
0375 099	5 x 6,0	13.0	297.6	369
0375 100	7 x 6,0	14.5	412.8	486
0375 101	3 x 10,0	13.4	297.6	373
0375 102	4 x 10,0	15.0	393.6	488
0375 103	5 x 10,0	16.5	489.6	613
0375 104	7 x 10,0	18.1	681.6	804
0375 105	3 x 16,0	16.0	475.2	565
0375 106	4 x 16,0	17.6	628.8	730
0375 107	5 x 16,0	19.6	782.4	931
0375 108	7 x 16,0	21.5	1089.6	1229
0375 109	3 x 25,0	18.7	734.4	812
0375 110	4 x 25,0	20.7	974.4	1055
0375 111	5 x 25,0	23.0	1214.4	1344
0375 112	3 x 35,0	22.0	1022.4	1115
0375 113	4 x 35,0	24.6	1358.4	1466
0375 114	5 x 35,0	27.2	1694.4	1859
0375 115	3 x 50,0	27.6	1464.0	1636
0375 116	4 x 50,0	30.8	1944.0	2151
0375 117	5 x 50,0	34.1	2424.0	2736

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YnKSLYekw-P 300/500 V**  
**TECHNOKONTROL YnKSLYekw-P-Nr 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLYekw-P 300/500 V** and **TECHNOKONTROL YnKSLYekw-P-Nr 300/500 V** are multipair flexible, overall shielded, flame retardant cables designed for control, protection and monitoring systems or power supply, all in power engineering.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YnKSLYekw-P 300/500 V** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YnKSLYekw-P-Nr 300/500 V** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLYekw-P-O 300/500 V** and **TECHNOKONTROL YnKSLYekw-P-Nr-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLYekw-P 300/500 V** and **TECHNOKONTROL YnvKSLYekw-P-Nr 300/500 V** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YnKSLYekw-P 300/500 V**  
**TECHNOKONTROL YnKSLYekw-P-Nr 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage Uo/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-17

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0637 001	2 x 2 x 0,5	7.1	21.6	58
0637 020	3 x 2 x 0,5	7.5	31.2	68
0637 002	4 x 2 x 0,5	8.3	40.8	83
0637 024	5 x 2 x 0,5	9.1	50.4	99
0637 003	6 x 2 x 0,5	10.3	60.0	125
0637 025	7 x 2 x 0,5	10.3	69.6	138
0637 006	8 x 2 x 0,5	11.0	79.2	154
0637 018	10 x 2 x 0,5	12.7	98.4	192
0637 019	12 x 2 x 0,5	13.2	117.6	220
0637 026	14 x 2 x 0,5	14.3	136.8	257
0637 021	16 x 2 x 0,5	15.2	156.0	288
0637 027	18 x 2 x 0,5	15.9	175.2	317
0637 028	20 x 2 x 0,5	16.7	194.4	347
0637 029	24 x 2 x 0,5	18.1	232.8	406
0637 030	25 x 2 x 0,5	18.6	242.4	429
0637 031	30 x 2 x 0,5	20.1	290.4	502
0637 032	31 x 2 x 0,5	20.4	300.0	517
0637 033	33 x 2 x 0,5	21.0	319.2	546
0637 034	2 x 2 x 0,75	7.7	33.6	76
0637 035	3 x 2 x 0,75	8.2	48.0	86
0637 036	4 x 2 x 0,75	9.0	62.4	107
0637 037	5 x 2 x 0,75	10.3	76.8	138
0637 038	7 x 2 x 0,75	11.2	105.6	176
0637 039	10 x 2 x 0,75	13.8	148.8	247
0637 040	12 x 2 x 0,75	14.7	177.6	292
0637 041	14 x 2 x 0,75	15.7	206.4	333
0637 042	16 x 2 x 0,75	16.6	235.2	373
0637 043	24 x 2 x 0,75	20.0	350.4	539
0637 044	27 x 2 x 0,75	21.0	393.6	598
0637 005	2 x 2 x 1,0	8.3	43.2	88

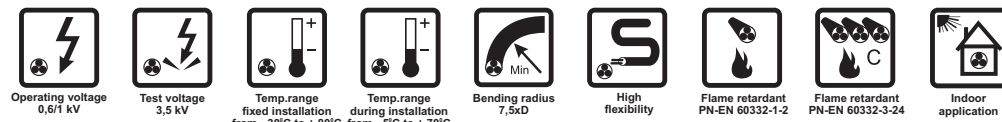
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0637 007	3 x 2 x 1,0	8.8	62.4	104
0637 014	4 x 2 x 1,0	10.1	81.6	140
0637 015	5 x 2 x 1,0	11.1	100.8	167
0637 008	7 x 2 x 1,0	12.4	139.2	223
0637 011	10 x 2 x 1,0	15.2	196.8	312
0637 009	12 x 2 x 1,0	15.9	235.2	360
0637 023	14 x 2 x 1,0	17.0	273.6	411
0637 045	16 x 2 x 1,0	18.0	312.0	462
0637 013	24 x 2 x 1,0	21.7	465.6	672
0637 022	2 x 2 x 1,5	9.3	64.8	112
0637 046	3 x 2 x 1,5	10.2	93.6	147
0637 047	4 x 2 x 1,5	11.2	122.4	183
0637 048	5 x 2 x 1,5	12.6	151.2	226
0637 049	7 x 2 x 1,5	13.7	208.8	294
0637 050	10 x 2 x 1,5	16.9	295.2	413
0637 051	12 x 2 x 1,5	17.7	352.8	480
0637 052	14 x 2 x 1,5	19.1	410.4	558
0637 053	16 x 2 x 1,5	20.3	468.0	629
0637 054	20 x 2 x 1,5	22.6	583.2	778
0637 055	2 x 2 x 2,5	11.1	103.2	167
0637 056	3 x 2 x 2,5	12.0	151.2	213
0637 004	4 x 2 x 2,5	13.2	199.2	268
0637 057	5 x 2 x 2,5	14.8	247.2	331
0637 058	7 x 2 x 2,5	16.1	343.2	436
0637 059	10 x 2 x 2,5	19.8	487.2	613
0637 060	12 x 2 x 2,5	20.8	583.2	717
0637 061	14 x 2 x 2,5	22.3	679.2	823
0637 062	16 x 2 x 2,5	23.8	775.2	937

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



**TECHNOKONTROL YnKSLY-Nr 0,6/1 kV**  
**TECHNOKONTROL YnKSLYżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLY-Nr 0,6/1 kV** and **TECHNOKONTROL YnKSLYżo-Nr 0,6/1 kV** are flexible, flame retardant cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YnKSLYżo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLY-Nr-O 0,6/1 kV** and **TECHNOKONTROL YnKSLYżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLY-Nr 0,6/1 kV** and **TECHNOKONTROL YnvKSLYżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLH-Nr 0,6/1 kV** and **TECHNOKONTROL HKSLHżo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YnKSLY-Nr 0,6/1 kV**  
**TECHNOKONTROL YnKSLYżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0813 031	2 x 0,75	6.4	14.4	49
0813 055	3 x 0,75	6.8	21.6	62
0813 026	4 x 0,75	7.4	28.8	76
0813 045	5 x 0,75	8.0	36.0	94
0813 056	6 x 0,75	8.7	43.2	112
0813 025	7 x 0,75	8.7	50.4	116
0813 057	8 x 0,75	9.4	57.6	135
0813 027	10 x 0,75	11.2	72.0	165
0813 058	12 x 0,75	11.6	86.4	190
0813 043	14 x 0,75	12.4	100.8	222
0813 046	16 x 0,75	13.1	115.2	252
0813 059	20 x 0,75	14.7	144.0	320
0813 060	21 x 0,75	14.7	151.2	324
0813 061	25 x 0,75	16.6	180.0	390
0813 062	32 x 0,75	17.9	230.4	472
0813 063	37 x 0,75	19.0	266.4	541
0813 047	40 x 0,75	19.7	288.0	584
0813 064	42 x 0,75	20.4	302.4	625
0813 065	50 x 0,75	22.2	360.0	723
0813 066	56 x 0,75	23.3	403.2	808
0813 067	61 x 0,75	24.0	439.2	866
0813 068	65 x 0,75	24.7	468.0	921
0813 069	75 x 0,75	26.7	540.0	1044
0813 070	80 x 0,75	27.3	576.0	1104
0813 071	100 x 0,75	30.0	720.0	1368
0813 016	2 x 1,0	6.8	19.2	56
0813 021	3 x 1,0	7.2	28.8	72
0813 018	4 x 1,0	7.8	38.4	89
0813 048	5 x 1,0	8.5	48.0	110
0813 049	6 x 1,0	9.3	57.6	131
0813 010	7 x 1,0	9.3	67.2	137

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0813 032	8 x 1,0	10.2	76.8	165
0813 019	10 x 1,0	12.2	96.0	203
0813 033	12 x 1,0	12.5	115.2	232
0813 011	14 x 1,0	13.2	134.4	264
0813 050	16 x 1,0	13.9	153.6	300
0813 040	20 x 1,0	15.6	192.0	381
0813 041	21 x 1,0	15.6	201.6	387
0813 051	25 x 1,0	17.7	240.0	466
0813 052	32 x 1,0	19.5	307.2	588
0813 053	37 x 1,0	20.2	355.2	650
0813 028	40 x 1,0	21.0	384.0	703
0813 072	42 x 1,0	21.8	403.2	753
0813 073	50 x 1,0	24.2	480.0	897
0813 074	56 x 1,0	24.9	537.6	974
0813 075	61 x 1,0	25.6	585.6	1045
0813 076	65 x 1,0	26.4	624.0	1112
0813 077	75 x 1,0	28.5	720.0	1263
0813 078	80 x 1,0	29.1	768.0	1337
0813 079	100 x 1,0	32.3	960.0	1677
0813 002	2 x 1,5	7.3	28.8	68
0813 005	3 x 1,5	7.7	43.2	89
0813 020	4 x 1,5	8.5	57.6	111
0813 004	5 x 1,5	9.3	72.0	139
0813 042	6 x 1,5	10.3	86.4	171
0813 003	7 x 1,5	10.3	100.8	180
0813 054	8 x 1,5	11.1	115.2	210
0813 001	10 x 1,5	13.2	144.0	257
0813 034	12 x 1,5	13.7	172.8	297
0813 006	14 x 1,5	14.6	201.6	346
0813 035	16 x 1,5	15.4	230.4	393
0813 036	20 x 1,5	17.0	288.0	491

**TECHNOKONTROL YnKSLY-Nr 0,6/1 kV**  
**TECHNOKONTROL YnKSLYżo-Nr 0,6/1 kV**

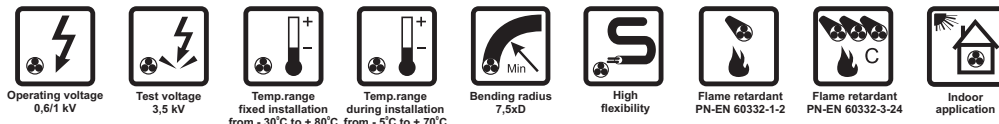
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0813 080	21 x 1,5	17.0	302.4	499
0813 037	25 x 1,5	19.8	360.0	621
0813 038	32 x 1,5	21.3	460.8	758
0813 039	37 x 1,5	22.1	532.8	843
0813 081	40 x 1,5	23.4	576.0	936
0813 082	42 x 1,5	24.2	604.8	999
0813 083	50 x 1,5	26.4	720.0	1160
0813 084	56 x 1,5	27.2	806.4	1264
0813 085	61 x 1,5	28.0	878.4	1360
0813 086	65 x 1,5	28.9	936.0	1448
0813 087	75 x 1,5	31.4	1080.0	1663
0813 088	80 x 1,5	32.1	1152.0	1763
0813 089	100 x 1,5	35.5	1440.0	2192
0813 024	2 x 2,5	8.2	48.0	89
0813 014	3 x 2,5	8.7	72.0	119
0813 015	4 x 2,5	9.5	96.0	149
0813 009	5 x 2,5	10.6	120.0	193
0813 090	6 x 2,5	11.6	144.0	231
0813 017	7 x 2,5	11.6	168.0	246
0813 091	8 x 2,5	12.7	192.0	293
0813 092	10 x 2,5	15.2	240.0	359
0813 093	12 x 2,5	15.7	288.0	417
0813 012	14 x 2,5	16.5	336.0	476
0813 094	16 x 2,5	17.4	384.0	542
0813 095	20 x 2,5	19.7	480.0	698
0813 096	21 x 2,5	19.7	504.0	712
0813 097	25 x 2,5	22.4	600.0	857
0813 098	32 x 2,5	24.6	768.0	1078
0813 099	37 x 2,5	25.5	888.0	1201
0813 100	40 x 2,5	26.5	960.0	1300
0813 101	42 x 2,5	27.5	1008.0	1387
0813 102	50 x 2,5	30.0	1200.0	1616
0813 103	56 x 2,5	31.0	1344.0	1768
0813 104	61 x 2,5	32.1	1464.0	1921
0813 105	65 x 2,5	33.1	1560.0	2047
0813 106	75 x 2,5	35.8	1800.0	2333

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0813 107	80 x 2,5	36.6	1920.0	2475
0813 108	100 x 2,5	40.7	2400.0	3107
0813 013	2 x 4,0	9.6	76.8	127
0813 109	3 x 4,0	10.4	115.2	177
0813 110	4 x 4,0	11.4	153.6	225
0813 111	5 x 4,0	12.7	192.0	289
0813 112	7 x 4,0	13.8	268.8	372
0813 113	3 x 6,0	11.6	172.8	238
0813 114	4 x 6,0	12.9	230.4	311
0813 115	5 x 6,0	14.4	288.0	400
0813 116	7 x 6,0	15.8	403.2	518
0813 117	3 x 10,0	14.6	288.0	396
0813 118	4 x 10,0	16.0	384.0	509
0813 119	5 x 10,0	17.7	480.0	644
0813 120	7 x 10,0	19.8	672.0	864
0813 121	3 x 16,0	16.9	460.8	580
0813 122	4 x 16,0	19.1	614.4	772
0813 123	5 x 16,0	21.0	768.0	976
0813 124	7 x 16,0	23.4	1075.2	1309
0813 125	3 x 25,0	20.7	720.0	872
0813 126	4 x 25,0	23.3	960.0	1155
0813 127	5 x 25,0	25.7	1200.0	1463
0813 128	3 x 35,0	23.6	1008.0	1176
0813 129	4 x 35,0	26.0	1344.0	1528
0813 130	5 x 35,0	28.8	1680.0	1938
0813 131	3 x 50,0	28.9	1440.0	1691
0813 132	4 x 50,0	32.2	1920.0	2222
0813 133	5 x 50,0	35.7	2400.0	2830

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YnKSLY-P 0,6/1 kV**  
**TECHNOKONTROL YnKSLY-P-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLY-P 0,6/1 kV** and **TECHNOKONTROL YnKSLY-P-Nr 0,6/1 kV** are multipair flexible, flame retardant cables designed for control, protection and monitoring systems or power supply, all in power engineering.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YnKSLY-P 0,6/1 kV** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YnKSLY-P-Nr 0,6/1 kV** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLY-P-O 0,6/1 kV** and **TECHNOKONTROL YnKSLY-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLY-P 0,6/1 kV** and **TECHNOKONTROL YnvKSLY-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLH-P 0,6/1 kV** and **TECHNOKONTROL HKSLH-P-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YnKSLY-P 0,6/1 kV**  
**TECHNOKONTROL YnKSLY-P-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-17

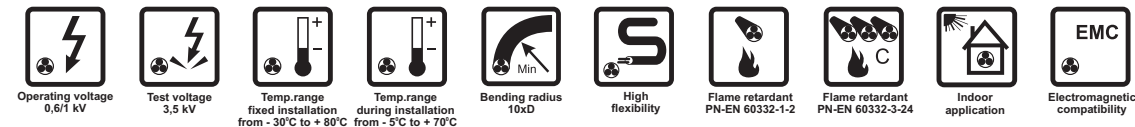
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1087 003	2 x 2 x 0,5	9.0	19.2	82
1087 016	3 x 2 x 0,5	9.6	28.8	95
1087 004	4 x 2 x 0,5	10.7	38.4	122
1087 017	5 x 2 x 0,5	11.8	48.0	145
1087 018	6 x 2 x 0,5	13.1	57.6	175
1087 019	7 x 2 x 0,5	13.1	67.2	193
1087 010	8 x 2 x 0,5	13.9	76.8	215
1087 020	10 x 2 x 0,5	16.0	96.0	269
1087 011	12 x 2 x 0,5	16.8	115.2	309
1087 002	14 x 2 x 0,5	17.9	134.4	351
1087 021	16 x 2 x 0,5	19.4	153.6	413
1087 022	18 x 2 x 0,5	20.4	172.8	455
1087 012	20 x 2 x 0,5	21.4	192.0	497
1087 013	24 x 2 x 0,5	23.5	230.4	604
1087 009	2 x 2 x 0,75	9.7	28.8	96
1087 023	3 x 2 x 0,75	10.4	43.2	118
1087 024	4 x 2 x 0,75	11.5	57.6	146
1087 025	5 x 2 x 0,75	12.8	72.0	181
1087 026	7 x 2 x 0,75	14.0	100.8	233
1087 027	10 x 2 x 0,75	17.2	144.0	327
1087 028	12 x 2 x 0,75	18.0	172.8	376
1087 029	14 x 2 x 0,75	19.7	201.6	449
1087 030	16 x 2 x 0,75	20.8	230.4	503
1087 031	18 x 2 x 0,75	21.9	259.2	556
1087 007	2 x 2 x 1,0	10.5	38.4	119
1087 032	3 x 2 x 1,0	11.1	57.6	138

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1087 005	4 x 2 x 1,0	12.4	76.8	178
1087 006	5 x 2 x 1,0	13.7	96.0	214
1087 033	7 x 2 x 1,0	15.1	134.4	285
1087 034	10 x 2 x 1,0	18.3	192.0	389
1087 035	12 x 2 x 1,0	19.6	230.4	470
1087 036	14 x 2 x 1,0	21.0	268.8	537
1087 014	16 x 2 x 1,0	22.2	307.2	602
1087 037	18 x 2 x 1,0	23.8	345.6	690
1087 038	2 x 2 x 1,5	11.4	57.6	148
1087 039	3 x 2 x 1,5	12.3	86.4	180
1087 040	4 x 2 x 1,5	13.5	115.2	224
1087 041	5 x 2 x 1,5	15.1	144.0	278
1087 042	7 x 2 x 1,5	16.5	201.6	363
1087 043	10 x 2 x 1,5	20.5	288.0	520
1087 001	12 x 2 x 1,5	21.4	345.6	602
1087 044	14 x 2 x 1,5	23.3	403.2	712
1087 015	16 x 2 x 1,5	24.7	460.8	797
1087 045	2 x 2 x 2,5	13.0	96.0	201
1087 046	3 x 2 x 2,5	13.8	144.0	241
1087 047	4 x 2 x 2,5	15.5	192.0	312
1087 048	5 x 2 x 2,5	17.1	240.0	377
1087 049	7 x 2 x 2,5	19.1	336.0	517
1087 050	10 x 2 x 2,5	23.6	480.0	737
1087 051	12 x 2 x 2,5	24.7	576.0	853
1087 052	14 x 2 x 2,5	26.5	672.0	978
1087 053	16 x 2 x 2,5	28.1	768.0	1102

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL YnKSLYekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YnKSLYekwżo-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLYekw-Nr 0,6/1 kV** and **TECHNOKONTROL YnKSLYekwżo-Nr 0,6/1 kV** are flexible, overall shielded, flame retardant cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOKONTROL YnKSLYekwżo-Nr 0,6/1 kV** cable,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLYekw-Nr-O 0,6/1 kV** and **TECHNOKONTROL YnKSLYekwżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLYekw-Nr 0,6/1 kV** and **TECHNOKONTROL YnvKSLYekwżo-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YnKSLYekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YnKSLYekwżo-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-15

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0536 060	2 x 0,5	6.2	12.0	46
0536 002	3 x 0,5	6.5	16.8	56
0536 061	4 x 0,5	7.0	21.6	68
0536 008	5 x 0,5	7.7	26.4	83
0536 062	6 x 0,5	8.3	31.2	98
0536 063	7 x 0,5	8.3	36.0	101
0536 064	8 x 0,5	8.9	40.8	116
0536 044	10 x 0,5	10.6	50.4	142
0536 065	12 x 0,5	10.9	60.0	161
0536 066	14 x 0,5	11.5	69.6	182
0536 067	16 x 0,5	12.3	79.2	212
0536 068	20 x 0,5	13.6	98.4	261
0536 069	21 x 0,5	13.6	103.2	264
0536 070	25 x 0,5	15.6	122.4	326
0536 071	32 x 0,5	16.8	156.0	391
0536 072	37 x 0,5	17.4	180.0	430
0536 073	42 x 0,5	19.1	204.0	516
0536 074	50 x 0,5	20.8	242.4	596
0536 075	56 x 0,5	21.4	271.2	643
0536 076	61 x 0,5	22.1	295.2	689
0536 006	2 x 0,75	6.5	19.2	55
0536 034	3 x 0,75	6.9	26.4	68
0536 020	4 x 0,75	7.5	33.6	82
0536 077	5 x 0,75	8.1	40.8	100
0536 038	6 x 0,75	8.8	48.0	118
0536 054	7 x 0,75	8.8	55.2	122
0536 078	8 x 0,75	9.5	62.4	141
0536 079	10 x 0,75	11.3	76.8	173
0536 039	12 x 0,75	11.7	91.2	197
0536 029	14 x 0,75	12.5	105.6	229
0536 080	16 x 0,75	13.2	120.0	259

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0536 040	20 x 0,75	14.8	148.8	328
0536 057	21 x 0,75	14.8	156.0	332
0536 081	25 x 0,75	16.7	184.8	399
0536 082	32 x 0,75	18.0	235.2	482
0536 083	37 x 0,75	19.1	271.2	550
0536 084	42 x 0,75	20.5	307.2	635
0536 085	50 x 0,75	22.3	364.8	734
0536 001	2 x 1,0	6.9	24.0	62
0536 004	3 x 1,0	7.3	33.6	78
0536 017	4 x 1,0	7.9	43.2	95
0536 013	5 x 1,0	8.6	52.8	116
0536 086	6 x 1,0	9.4	62.4	138
0536 009	7 x 1,0	9.4	72.0	144
0536 045	8 x 1,0	10.3	81.6	172
0536 015	10 x 1,0	12.3	100.8	211
0536 010	12 x 1,0	12.6	120.0	240
0536 003	14 x 1,0	13.3	139.2	272
0536 018	16 x 1,0	14.0	158.4	308
0536 027	20 x 1,0	15.7	196.8	390
0536 022	21 x 1,0	15.7	206.4	395
0536 087	25 x 1,0	17.8	244.8	476
0536 088	32 x 1,0	19.6	312.0	597
0536 089	37 x 1,0	20.3	360.0	660
0536 090	42 x 1,0	21.9	408.0	763
0536 091	50 x 1,0	24.3	484.8	908
0536 021	2 x 1,5	7.4	36.0	77
0536 024	3 x 1,5	7.8	50.4	97
0536 007	4 x 1,5	8.6	64.8	120
0536 023	5 x 1,5	9.4	79.2	147
0536 052	6 x 1,5	10.4	93.6	180

**TECHNOKONTROL YnKSLYekw-Nr 0,6/1 kV**  
**TECHNOKONTROL YnKSLYekwżo-Nr 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0536 005	7 x 1,5	10.4	108.0	189
0536 053	8 x 1,5	11.2	122.4	219
0536 048	10 x 1,5	13.3	151.2	267
0536 030	12 x 1,5	13.8	180.0	307
0536 012	14 x 1,5	14.7	208.8	356
0536 037	16 x 1,5	15.5	237.6	404
0536 056	20 x 1,5	17.1	295.2	501
0536 092	21 x 1,5	17.1	309.6	510
0536 093	25 x 1,5	19.9	367.2	633
0536 094	32 x 1,5	21.4	468.0	771
0536 095	37 x 1,5	22.2	540.0	855
0536 096	42 x 1,5	24.3	612.0	1011
0536 097	50 x 1,5	26.5	727.2	1174
0536 036	2 x 2,5	8.3	55.2	98
0536 047	3 x 2,5	8.8	79.2	127
0536 019	4 x 2,5	9.6	103.2	158
0536 014	5 x 2,5	10.7	127.2	202
0536 098	6 x 2,5	11.7	151.2	241
0536 031	7 x 2,5	11.7	175.2	255
0536 058	8 x 2,5	12.8	199.2	303
0536 049	10 x 2,5	15.3	247.2	370
0536 032	12 x 2,5	15.8	295.2	427
0536 099	14 x 2,5	16.6	343.2	487
0536 100	16 x 2,5	17.5	391.2	553
0536 101	20 x 2,5	19.8	487.2	709
0536 102	21 x 2,5	19.8	511.2	723
0536 103	25 x 2,5	22.5	607.2	869
0536 104	2 x 4,0	9.7	86.4	138
0536 105	3 x 4,0	10.5	124.8	189

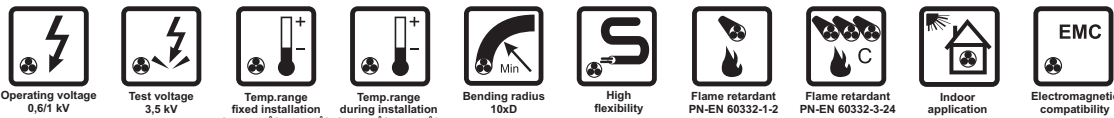
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0536 025	4 x 4,0	11.5	163.2	237
0536 016	5 x 4,0	12.8	201.6	301
0536 106	7 x 4,0	13.9	278.4	384
0536 107	3 x 6,0	11.7	182.4	250
0536 108	4 x 6,0	13.0	240.0	323
0536 059	5 x 6,0	14.5	297.6	412
0536 109	7 x 6,0	15.9	412.8	530
0536 110	3 x 10,0	14.7	297.6	409
0536 111	4 x 10,0	16.1	393.6	522
0536 112	5 x 10,0	17.8	489.6	657
0536 113	7 x 10,0	19.9	681.6	877
0536 114	3 x 16,0	17.0	475.2	598
0536 115	4 x 16,0	19.2	628.8	790
0536 116	5 x 16,0	21.1	782.4	994
0536 117	7 x 16,0	23.5	1089.6	1327
0536 118	3 x 25,0	20.8	734.4	890
0536 119	4 x 25,0	23.4	974.4	1174
0536 120	5 x 25,0	25.8	1214.4	1482
0536 121	3 x 35,0	23.7	1022.4	1195
0536 122	4 x 35,0	26.1	1358.4	1547
0536 123	5 x 35,0	28.9	1694.4	1959
0536 124	3 x 50,0	29.0	1464.0	1719
0536 125	4 x 50,0	32.3	1944.0	2251
0536 126	5 x 50,0	35.8	2424.0	2860

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



**TECHNOKONTROL YnKSLYekw-P 0,6/1 kV**  
**TECHNOKONTROL YnKSLYekw-P-Nr 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**TECHNOKONTROL YnKSLYekw-P 0,6/1 kV** and **TECHNOKONTROL YnKSLYekw-P-Nr 0,6/1 kV** are multipair flexible, overall shielded, flame retardant cables designed for control, protection and monitoring systems or power supply, all in power engineering.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 (compatible with IEC 60189-2) in **TECHNOKONTROL YnKSLYekw-P 0,6/1 kV** cable; black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YnKSLYekw-P-Nr 0,6/1 kV** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

**AVAILABLE UPON REQUEST**

**TECHNOKONTROL YnKSLYekw-P-O 0,6/1 kV** and **TECHNOKONTROL YnKSLYekw-P-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLYekw-P 0,6/1 kV** and **TECHNOKONTROL YnvKSLYekw-P-Nr 0,6/1 kV** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL YnKSLYekw-P 0,6/1 kV**  
**TECHNOKONTROL YnKSLYekw-P-Nr 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-17

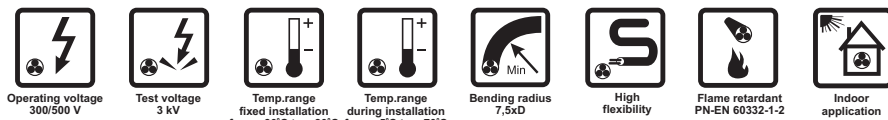
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0537 002	2 x 2 x 0,5	9.1	21.6	87
0537 023	3 x 2 x 0,5	9.7	31.2	100
0537 019	4 x 2 x 0,5	10.8	40.8	127
0537 034	5 x 2 x 0,5	11.9	50.4	151
0537 003	6 x 2 x 0,5	13.2	60.0	181
0537 035	7 x 2 x 0,5	13.2	69.6	199
0537 004	8 x 2 x 0,5	14.0	79.2	221
0537 020	10 x 2 x 0,5	16.1	98.4	276
0537 005	12 x 2 x 0,5	16.9	117.6	316
0537 021	14 x 2 x 0,5	18.0	136.8	358
0537 018	16 x 2 x 0,5	19.5	156.0	420
0537 036	18 x 2 x 0,5	20.5	175.2	463
0537 037	20 x 2 x 0,5	21.5	194.4	506
0537 032	24 x 2 x 0,5	23.6	232.8	612
0537 007	2 x 2 x 0,75	10.0	33.6	108
0537 024	3 x 2 x 0,75	10.5	48.0	125
0537 008	4 x 2 x 0,75	11.6	62.4	154
0537 025	5 x 2 x 0,75	12.9	76.8	188
0537 038	7 x 2 x 0,75	14.1	105.6	241
0537 026	10 x 2 x 0,75	17.3	148.8	336
0537 010	12 x 2 x 0,75	18.1	177.6	386
0537 027	14 x 2 x 0,75	19.8	206.4	459
0537 011	16 x 2 x 0,75	20.9	235.2	513
0537 039	24 x 2 x 0,75	25.4	350.4	747
0537 001	2 x 2 x 1,0	10.6	43.2	126
0537 017	3 x 2 x 1,0	11.2	62.4	146

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0537 013	4 x 2 x 1,0	12.5	81.6	186
0537 040	5 x 2 x 1,0	13.8	100.8	222
0537 015	7 x 2 x 1,0	15.2	139.2	293
0537 041	10 x 2 x 1,0	18.8	196.8	417
0537 014	12 x 2 x 1,0	19.7	235.2	480
0537 016	14 x 2 x 1,0	21.1	273.6	547
0537 042	16 x 2 x 1,0	22.3	312.0	612
0537 043	18 x 2 x 1,0	23.9	350.4	701
0537 033	2 x 2 x 1,5	11.5	64.8	157
0537 044	3 x 2 x 1,5	12.4	93.6	189
0537 012	4 x 2 x 1,5	13.6	122.4	234
0537 045	5 x 2 x 1,5	15.2	151.2	288
0537 046	7 x 2 x 1,5	16.6	208.8	374
0537 047	10 x 2 x 1,5	20.6	295.2	532
0537 048	12 x 2 x 1,5	21.5	352.8	615
0537 049	14 x 2 x 1,5	23.4	410.4	725
0537 050	16 x 2 x 1,5	24.8	468.0	810
0537 051	2 x 2 x 2,5	13.1	103.2	211
0537 052	3 x 2 x 2,5	13.9	151.2	251
0537 053	4 x 2 x 2,5	15.6	199.2	323
0537 054	5 x 2 x 2,5	17.2	247.2	388
0537 055	7 x 2 x 2,5	19.2	343.2	529
0537 056	10 x 2 x 2,5	23.7	487.2	750
0537 057	12 x 2 x 2,5	24.8	583.2	866
0537 058	14 x 2 x 2,5	26.6	679.2	992
0537 059	16 x 2 x 2,5	28.2	775.2	1116

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YStY 300/500 V YStYżo 300/500 V

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**YStY 300/500 V** and **YStYżo 300/500 V** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cables are suitable for connecting fixed and movable equipment in dry or wet locations.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **YStYżo 300/500 V** cable,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**YStY-O 300/500 V** and **YStYżo-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YnStY 300/500 V** and **YnStYżo 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

## YStY 300/500 V YStYżo 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	from - 30 to + 80°C
Voltage test	3.0 kV rms	for fixed installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-91/K-376

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0408 083	2 x 0,5	4.6	9.6	31
0408 063	3 x 0,5	4.9	14.4	37
0408 001	4 x 0,5	5.3	19.2	45
0408 064	5 x 0,5	5.8	24.0	55
0408 084	6 x 0,5	6.3	28.8	65
0408 085	7 x 0,5	6.3	33.6	67
0408 025	10 x 0,5	7.9	48.0	94
0408 086	12 x 0,5	8.2	57.6	107
0408 026	14 x 0,5	8.6	67.2	121
0408 087	16 x 0,5	9.1	76.8	137
0408 088	19 x 0,5	10.0	91.2	164
0408 089	21 x 0,5	10.5	100.8	181
0408 002	24 x 0,5	11.6	115.2	205
0408 090	27 x 0,5	12.1	129.6	229
0408 091	30 x 0,5	12.5	144.0	250
0408 092	36 x 0,5	13.5	172.8	296
0408 093	37 x 0,5	13.5	177.6	298
0408 065	40 x 0,5	14.2	192.0	328
0408 094	44 x 0,5	15.3	211.2	359
0408 095	48 x 0,5	15.6	230.4	385
0408 096	52 x 0,5	16.0	249.6	411
0408 097	56 x 0,5	16.5	268.8	441
0408 098	60 x 0,5	17.0	288.0	470
0408 099	2 x 0,75	5.0	14.4	39
0408 003	3 x 0,75	5.2	21.6	46
0408 004	4 x 0,75	5.7	28.8	56
0408 005	5 x 0,75	6.2	36.0	68
0408 066	6 x 0,75	6.8	43.2	82
0408 006	7 x 0,75	6.8	50.4	86
0408 007	10 x 0,75	8.6	72.0	121
0408 027	12 x 0,75	8.9	86.4	138
0408 041	14 x 0,75	9.8	100.8	165

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0408 058	16 x 0,75	10.3	115.2	186
0408 040	19 x 0,75	10.9	136.8	213
0408 100	21 x 0,75	11.4	151.2	235
0408 008	24 x 0,75	12.9	172.8	272
0408 101	27 x 0,75	13.2	194.4	298
0408 102	30 x 0,75	13.6	216.0	325
0408 103	36 x 0,75	14.9	259.2	393
0408 104	37 x 0,75	14.9	266.4	397
0408 105	40 x 0,75	15.5	288.0	429
0408 106	44 x 0,75	16.7	316.8	469
0408 107	48 x 0,75	17.0	345.6	504
0408 108	52 x 0,75	17.5	374.4	541
0408 109	56 x 0,75	18.0	403.2	579
0408 110	60 x 0,75	18.8	432.0	628
0408 111	2 x 1,0	5.3	19.2	45
0408 009	3 x 1,0	5.6	28.8	56
0408 010	4 x 1,0	6.2	38.4	69
0408 011	5 x 1,0	6.7	48.0	84
0408 061	6 x 1,0	7.3	57.6	100
0408 012	7 x 1,0	7.3	67.2	106
0408 013	10 x 1,0	9.3	96.0	150
0408 014	12 x 1,0	10.1	115.2	181
0408 015	14 x 1,0	10.6	134.4	205
0408 038	16 x 1,0	11.1	153.6	232
0408 049	19 x 1,0	12.0	182.4	271
0408 039	21 x 1,0	12.6	201.6	299
0408 042	24 x 1,0	14.2	230.4	346
0408 062	27 x 1,0	14.5	259.2	379
0408 112	30 x 1,0	15.0	288.0	414
0408 113	36 x 1,0	16.2	345.6	492
0408 114	37 x 1,0	16.2	355.2	498
0408 032	40 x 1,0	16.8	384.0	538

**YStY 300/500 V**  
**YStYżo 300/500 V**

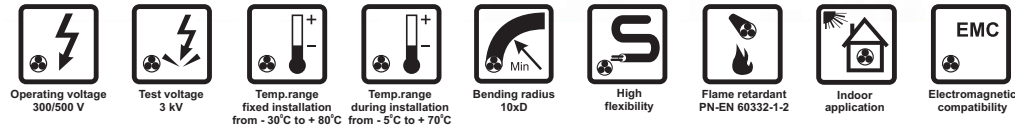
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0408 115	44 x 1,0	18.4	422.4	597
0408 116	48 x 1,0	18.7	460.8	642
0408 117	52 x 1,0	19.2	499.2	688
0408 067	56 x 1,0	19.8	537.6	739
0408 118	60 x 1,0	20.4	576.0	789
0408 119	2 x 1,5	5.9	28.8	59
0408 016	3 x 1,5	6.2	43.2	72
0408 021	4 x 1,5	6.8	57.6	90
0408 017	5 x 1,5	7.5	72.0	111
0408 120	6 x 1,5	8.1	86.4	132
0408 018	7 x 1,5	8.1	100.8	140
0408 019	10 x 1,5	10.8	144.0	210
0408 020	12 x 1,5	11.2	172.8	240
0408 028	14 x 1,5	12.0	201.6	279
0408 121	16 x 1,5	12.6	230.4	315
0408 047	19 x 1,5	13.3	273.6	362
0408 068	21 x 1,5	14.2	302.4	407
0408 031	24 x 1,5	15.8	345.6	462
0408 122	27 x 1,5	16.1	388.8	508
0408 123	30 x 1,5	16.7	432.0	557
0408 124	36 x 1,5	18.1	518.4	664
0408 125	37 x 1,5	18.1	532.8	672
0408 069	40 x 1,5	19.0	576.0	735
0408 126	44 x 1,5	20.5	633.6	805
0408 127	48 x 1,5	20.9	691.2	867
0408 128	52 x 1,5	21.5	748.8	932
0408 129	56 x 1,5	22.1	806.4	1000
0408 130	60 x 1,5	23.0	864.0	1079
0408 131	2 x 2,5	6.7	48.0	82
0408 035	3 x 2,5	7.1	72.0	104
0408 034	4 x 2,5	7.8	96.0	130
0408 036	5 x 2,5	8.6	120.0	162
0408 132	6 x 2,5	9.8	144.0	202
0408 043	7 x 2,5	9.8	168.0	216
0408 044	10 x 2,5	12.7	240.0	313
0408 048	12 x 2,5	13.2	288.0	361
0408 056	14 x 2,5	13.9	336.0	412
0408 133	16 x 2,5	14.8	384.0	474
0408 134	19 x 2,5	15.7	456.0	546
0408 135	21 x 2,5	16.5	504.0	605
0408 136	24 x 2,5	18.6	576.0	695
0408 137	27 x 2,5	19.0	648.0	766

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0408 138	30 x 2,5	19.7	720.0	841
0408 139	36 x 2,5	21.3	864.0	1004
0408 140	37 x 2,5	21.3	888.0	1018
0408 141	40 x 2,5	22.1	960.0	1102
0408 142	44 x 2,5	24.2	1056.0	1218
0408 143	48 x 2,5	24.6	1152.0	1314
0408 144	52 x 2,5	25.3	1248.0	1413
0408 145	56 x 2,5	26.1	1344.0	1518
0408 146	60 x 2,5	26.9	1440.0	1625
0408 147	2 x 4,0	8.1	76.8	123
0408 070	3 x 4,0	8.6	115.2	157
0408 071	4 x 4,0	9.9	153.6	205
0408 072	5 x 4,0	10.9	192.0	255
0408 073	7 x 4,0	12.1	268.8	333
0408 148	3 x 6,0	10.4	172.8	235
0408 074	4 x 6,0	11.5	230.4	296
0408 149	5 x 6,0	12.8	288.0	374
0408 075	7 x 6,0	14.3	403.2	491
0408 150	3 x 10,0	13.2	288.0	396
0408 076	4 x 10,0	14.8	384.0	507
0408 077	5 x 10,0	16.3	480.0	632
0408 078	7 x 10,0	17.9	672.0	824
0408 151	3 x 16,0	15.8	460.8	603
0408 079	4 x 16,0	17.4	614.4	763
0408 080	5 x 16,0	19.4	768.0	961
0408 152	7 x 16,0	21.3	1075.2	1260
0408 153	3 x 25,0	18.5	720.0	872
0408 081	4 x 25,0	20.5	960.0	1110
0408 082	5 x 25,0	22.8	1200.0	1396
0408 154	3 x 35,0	21.8	1008.0	1213
0408 155	4 x 35,0	24.4	1344.0	1557
0408 156	5 x 35,0	27.0	1680.0	1950
0408 157	3 x 50,0	27.4	1440.0	1806
0408 158	4 x 50,0	30.4	1920.0	2296
0408 159	5 x 50,0	33.9	2400.0	2896

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YStYekw YStYekwżo

### CONTROL AND POWER SUPPLY FLEXIBLE CABLES



### APPLICATIONS

**YStYekw 300/500 V** and **YStYekwżo 300/500 V** are cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Cable inner sheath offers enhanced protection against mechanical damage.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **YStYekwżo 300/500 V** cable,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**YStYekw-O 300/500 V** and **YStYekwżo-O 300/500 V** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YnStYekw 300/500 V** and **YnStYekwżo 300/500 V** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**YStYekw**  
**YStYekwżo**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-91/K-363

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0518 009	2 x 0,5	6.5	19.6	54
0518 010	3 x 0,5	6.8	25.0	63
0518 011	4 x 0,5	7.2	30.6	73
0518 012	5 x 0,5	7.7	36.4	85
0518 005	6 x 0,5	8.3	46.2	102
0518 013	7 x 0,5	8.3	51.0	104
0518 014	10 x 0,5	10.3	69.7	146
0518 015	12 x 0,5	10.6	79.9	162
0518 016	14 x 0,5	11.0	90.6	178
0518 017	16 x 0,5	11.5	101.4	197
0518 018	19 x 0,5	12.2	117.1	224
0518 019	21 x 0,5	12.7	128.0	245
0518 020	24 x 0,5	13.8	145.3	272
0518 021	27 x 0,5	14.3	160.5	300
0518 022	30 x 0,5	14.7	175.9	323
0518 023	36 x 0,5	15.8	214.3	382
0518 024	37 x 0,5	15.8	219.1	385
0518 025	40 x 0,5	16.3	235.4	412
0518 026	44 x 0,5	17.4	257.6	446
0518 027	48 x 0,5	17.7	277.8	475
0518 028	52 x 0,5	18.1	298.2	504
0518 029	56 x 0,5	18.8	319.0	545
0518 030	60 x 0,5	19.3	339.7	577
0518 004	2 x 0,75	6.9	25.2	62
0518 006	3 x 0,75	7.1	32.8	72
0518 031	4 x 0,75	7.6	41.0	85
0518 032	5 x 0,75	8.2	53.1	104
0518 033	6 x 0,75	8.8	62.2	121
0518 034	7 x 0,75	8.8	69.4	125
0518 035	10 x 0,75	11.0	95.4	176
0518 036	12 x 0,75	11.3	110.8	196

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0518 037	14 x 0,75	12.0	126.2	223
0518 038	16 x 0,75	12.5	142.3	248
0518 039	19 x 0,75	13.1	165.1	277
0518 040	21 x 0,75	13.6	180.8	302
0518 041	24 x 0,75	15.2	212.4	352
0518 042	27 x 0,75	15.5	235.0	381
0518 043	30 x 0,75	15.9	257.8	411
0518 044	36 x 0,75	17.0	304.4	479
0518 045	37 x 0,75	17.0	311.6	483
0518 046	40 x 0,75	17.6	335.1	518
0518 047	44 x 0,75	19.0	367.6	571
0518 048	48 x 0,75	19.3	397.3	609
0518 049	52 x 0,75	19.8	427.7	648
0518 050	56 x 0,75	20.3	458.1	691
0518 051	60 x 0,75	20.9	488.7	734
0518 002	2 x 1,0	7.2	30.6	70
0518 052	3 x 1,0	7.5	40.8	83
0518 053	4 x 1,0	8.2	55.5	103
0518 054	5 x 1,0	8.7	67.0	122
0518 055	6 x 1,0	9.3	77.6	141
0518 056	7 x 1,0	9.3	87.2	146
0518 057	10 x 1,0	11.7	121.2	207
0518 058	12 x 1,0	12.3	141.4	239
0518 059	14 x 1,0	12.8	161.9	266
0518 060	16 x 1,0	13.3	182.4	296
0518 061	19 x 1,0	14.2	213.0	340
0518 062	21 x 1,0	14.8	233.7	372
0518 063	24 x 1,0	16.3	273.8	424
0518 064	27 x 1,0	16.6	303.1	460
0518 065	30 x 1,0	17.1	333.5	499
0518 066	36 x 1,0	18.5	394.8	592

## YStYekw YStYekwżo

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
		mm	kg/km	kg/km
0518 067	37 x 1,0	18.5	404.4	597
0518 068	40 x 1,0	19.1	435.1	641
0518 069	44 x 1,0	20.5	477.8	698
0518 070	48 x 1,0	20.8	517.2	745
0518 071	52 x 1,0	21.3	557.1	795
0518 072	56 x 1,0	21.9	597.4	849
0518 073	60 x 1,0	22.9	659.9	935
0518 001	2 x 1,5	7.9	45.2	87
0518 074	3 x 1,5	8.2	60.3	105
0518 075	4 x 1,5	8.8	76.6	126
0518 076	5 x 1,5	9.9	92.5	159
0518 077	6 x 1,5	10.5	108.5	184
0518 078	7 x 1,5	10.5	122.9	193
0518 079	10 x 1,5	13.0	172.0	267
0518 080	12 x 1,5	13.4	201.8	302
0518 081	14 x 1,5	14.2	232.2	345
0518 082	16 x 1,5	14.8	262.5	386
0518 083	19 x 1,5	15.6	314.5	443
0518 084	21 x 1,5	16.3	345.8	487
0518 085	24 x 1,5	17.9	393.6	546
0518 086	27 x 1,5	18.4	437.7	603
0518 087	30 x 1,5	19.0	482.8	656
0518 088	36 x 1,5	20.4	573.5	771
0518 089	37 x 1,5	20.4	587.9	780
0518 090	40 x 1,5	21.1	633.3	839
0518 091	44 x 1,5	23.0	717.9	945
0518 092	48 x 1,5	23.4	777.2	1012
0518 093	52 x 1,5	24.0	837.4	1081
0518 094	56 x 1,5	24.6	897.4	1154
0518 095	60 x 1,5	25.3	958.0	1228
0518 003	2 x 2,5	8.7	67.0	112
0518 096	3 x 2,5	9.1	91.5	139
0518 097	4 x 2,5	10.2	117.7	178
0518 098	5 x 2,5	11.0	143.4	214
0518 099	6 x 2,5	12.0	169.4	256
0518 100	7 x 2,5	12.0	193.4	270
0518 101	10 x 2,5	14.9	272.4	376
0518 102	12 x 2,5	15.5	328.6	436
0518 103	14 x 2,5	16.2	378.8	492
0518 104	16 x 2,5	16.9	428.9	552
0518 105	19 x 2,5	17.8	503.9	629
0518 106	21 x 2,5	18.8	554.2	700
0518 107	24 x 2,5	20.7	632.0	787

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
		mm	kg/km	kg/km
0518 108	27 x 2,5	21.1	705.3	864
0518 109	30 x 2,5	21.8	779.5	944
0518 110	36 x 2,5	23.8	951.7	1148
0518 111	37 x 2,5	23.8	975.7	1162
0518 112	40 x 2,5	24.6	1051.0	1251
0518 113	44 x 2,5	26.7	1181.4	1387
0518 114	48 x 2,5	27.1	1279.6	1488
0518 115	52 x 2,5	27.8	1379.2	1593
0518 116	56 x 2,5	28.6	1479.5	1704
0518 117	60 x 2,5	29.4	1579.8	1817
0518 118	2 x 4,0	10.5	98.9	160
0518 119	3 x 4,0	11.0	138.6	202
0518 120	4 x 4,0	12.1	179.3	254
0518 121	5 x 4,0	13.1	220.3	309
0518 122	7 x 4,0	14.3	299.7	393
0518 123	3 x 6,0	12.6	199.9	279
0518 124	4 x 6,0	13.7	260.2	347
0518 125	5 x 6,0	15.1	327.4	438
0518 126	7 x 6,0	16.4	446.6	556
0518 127	3 x 10,0	15.5	328.6	445
0518 128	4 x 10,0	16.9	428.9	560
0518 129	5 x 10,0	18.6	529.5	700
0518 130	7 x 10,0	20.2	726.6	901
0518 131	3 x 16,0	17.9	508.8	638
0518 132	4 x 16,0	19.7	667.4	820
0518 133	5 x 16,0	21.5	826.6	1021
0518 134	7 x 16,0	23.8	1162.9	1361
0518 135	3 x 25,0	20.6	775.8	897
0518 136	4 x 25,0	23.0	1044.3	1182
0518 137	5 x 25,0	25.1	1293.1	1473
0518 138	3 x 35,0	24.3	1097.8	1250
0518 139	4 x 35,0	26.9	1470.5	1627
0518 140	5 x 35,0	29.5	1820.3	2037
0518 141	3 x 50,0	29.9	1582.4	1810
0518 142	4 x 50,0	33.5	2080.4	2374
0518 143	5 x 50,0	37.0	2600.9	2999

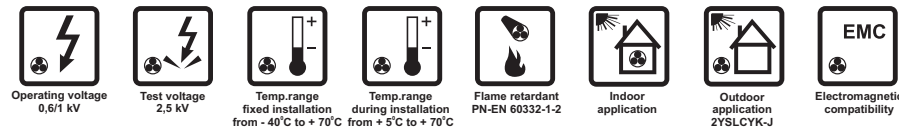
Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOFLEX 2YSLCY-J TECHNOFLEX 2YSLCYK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 2YSLCY-J** and **TECHNOFLEX 2YSLCYK-J** shielded cables are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

**TECHNOFLEX 2YSLCY-J** cables are suitable for indoor and **TECHNOFLEX 2YSLCYK-J** cables for outdoor fixed and movable installations.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- polyethylene (PE) insulation - black, blue, brown and green-yellow,
- insulated conductors laid-up in a cable core,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 2YSLCY-J** cable, transparent or grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 2YSLCYK-J** cable, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEX 2YSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 2YSLCY-J**  
**TECHNOFLEX 2YSLCYK-J**

**CHARACTERISTICS**

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	2.5 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 70°C	up to 12 mm	5 x cable diameter
Effective capacitance (according		from 12 to 20 mm	7.5 x cable diameter
to different cross-sections)		from 20 mm	10 x cable diameter
conductor/conductor	70 to 250 nF/km	flexible for diameters:	
conductor/screen	110 to 410 nF/km	up to 12 mm	10 x cable diameter
		from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0250

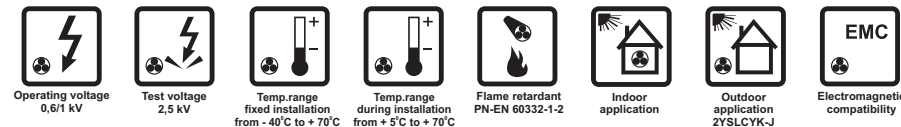
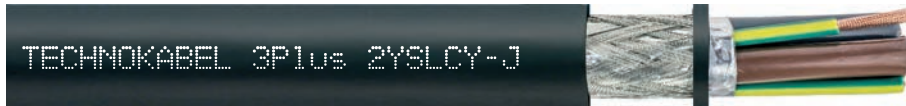
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
2YSLCY-J						
0580 001	4x1,5	9.9	13.3	18	80.2	141
0580 002	4x2,5	11.4	7.98	26	124.5	195
0580 003	4x4	13.3	4.95	34	186.5	277
0580 009	4x6	15.3	3.30	44	278.5	379
0580 004	4x10	18.4	1.91	61	442.6	595
0580 007	4x16	22.1	1.21	82	708.9	914
0580 006	4x25	25.3	0.780	108	1098.8	1294
0580 008	4x35	28.3	0.554	135	1501.6	1685
0580 012	4x50	36.3	0.386	168	2133.5	2496
0580 013	4x70	43.7	0.272	207	3003.1	3625
0580 014	4x95	48.0	0.206	250	4003.2	4622
0580 015	4x120	53.4	0.161	292	5159.6	5923
0580 016	4x150	57.9	0.129	335	6307.0	7019
0580 017	4x185	63.9	0.106	385	7764.3	8649
0580 018	4x240	73.1	0.0801	453	9926.7	11232

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
2YSLCYK-J						
1103 003	4x1,5	9.9	13.3	18	80.2	145
1103 004	4x2,5	11.4	7.98	26	124.5	199
1103 005	4x4	13.3	4.95	34	186.5	283
1103 006	4x6	15.3	3.30	44	278.5	386
1103 001	4x10	18.4	1.91	61	442.6	605
1103 007	4x16	22.1	1.21	82	708.9	926
1103 002	4x25	25.3	0.780	108	1098.8	1309
1103 009	4x35	28.3	0.554	135	1501.6	1703
1103 008	4x50	36.3	0.386	168	2133.5	2522
1103 010	4x70	43.7	0.272	207	3003.1	3660
1103 011	4x95	48.0	0.206	250	4003.2	4662
1103 012	4x120	53.4	0.161	292	5159.6	5972
1103 013	4x150	57.9	0.129	335	6307.0	7074
1103 014	4x185	63.9	0.106	385	7764.3	8714
1103 015	4x240	73.1	0.0801	453	9926.7	11314

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 3PIus 2YSLCY-J TECHNOFLEX 3PIus 2YSLCYK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 3PIus 2YSLCY-J** and **TECHNOFLEX 3PIus 2YSLCYK-J** shielded cables with symmetrical construction are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

The division of the protective conductor into 3 evenly distributed in the cable core (on the circumference of 120°) enabled to achieve a symmetrical distribution of fields and reduce the emission of electromagnetic interference into the environment in relation to the cables with four conductors.

**TECHNOFLEX 3PIus 2YSLCY-J** cables are suitable for indoor and **TECHNOFLEX 3PIus 2YSLCYK-J** cables for outdoor fixed and movable installations.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- polyethylene (PE) insulation - black, blue, brown and green-yellow (protective conductor divided into 3 wires in a green-yellow),
- insulated conductors laid-up in a cable core, construction 3+3,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 3PIus 2YSLCY-J** cable, transparent or grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 3PIus 2YSLCYK-J** cable, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEX 3PIus 2YSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 3Plus 2YSLCY-J**  
**TECHNOFLEX 3Plus 2YSLCYK-J**

**CHARACTERISTICS**

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	2.5 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 70°C	up to 12 mm	5 x cable diameter
Effective capacitance (according		from 12 to 20 mm	7.5 x cable diameter
to different cross-sections)		from 20 mm	10 x cable diameter
conductor/conductor	70 to 250 nF/km	flexible for diameters:	
conductor/screen	110 to 410 nF/km	up to 12 mm	10 x cable diameter
		from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0250

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
3Plus 2YSLCY-J						
0580 019	3x1,5+3G0,25	9.0	13.3	18	70.9	118
0580 020	3x2,5+3G0,5	10.5	7.98	26	111.6	169
0580 021	3x4+3G0,75	12.0	4.95	34	166.1	229
0580 005	3x6+3G1	14.0	3.3	44	244.5	323
0580 022	3x10+3G1,5	16.8	1.91	61	383.1	494
0580 023	3x16+3G2,5	19.9	1.21	82	617.3	752
0580 024	3x25+3G4	22.9	0.78	108	959.0	1078
0580 025	3x35+3G6	25.5	0.554	135	1320.1	1428
0580 026	3x50+3G10	32.8	0.386	168	1916.3	2151
0580 027	3x70+3G10	39.1	0.272	207	2533.9	2926
0580 028	3x95+3G16	43.3	0.206	250	3510.8	3918
0580 029	3x120+3G16	47.6	0.161	292	4270.8	4742
0580 030	3x150+3G25	52.0	0.129	335	5524.0	5926
0580 031	3x185+3G35	57.4	0.106	385	6881.6	7345
0580 032	3x240+3G50	65.8	0.0801	453	9021.7	9702

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
3Plus 2YSLCYK-J						
1691 002	3x1,5+3G0,25	9.0	13.3	18	70.9	121
1691 003	3x2,5+3G0,5	10.5	7.98	26	111.6	172
1691 004	3x4+3G0,75	12.0	4.95	34	166.1	233
1691 005	3x6+3G1	14.0	3.3	44	244.5	328
1691 006	3x10+3G1,5	16.8	1.91	61	383.1	502
1691 007	3x16+3G2,5	19.9	1.21	82	617.3	762
1691 008	3x25+3G4	22.9	0.78	108	959.0	1089
1691 009	3x35+3G6	25.5	0.554	135	1320.1	1441
1691 010	3x50+3G10	32.8	0.386	168	1916.3	2171
1691 011	3x70+3G10	39.1	0.272	207	2533.9	2951
1691 012	3x95+3G16	43.3	0.206	250	3510.8	3949
1691 013	3x120+3G16	47.6	0.161	292	4270.8	4777
1691 001	3x150+3G25	52.0	0.129	335	5524.0	5967
1691 014	3x185+3G35	57.4	0.106	385	6881.6	7393
1691 015	3x240+3G50	65.8	0.0801	453	9021.7	9763

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 2XSLCY-J TECHNOFLEX 2XSLCYK-J

### MOTOR SUPPLY CABLES



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -40°C to +70°C



Temp. range  
during installation  
from +5°C to +70°C



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Outdoor  
application  
2XSLCYK-J



Electromagnetic  
compatibility

## APPLICATIONS

**TECHNOFLEX 2XSLCY-J** and **TECHNOFLEX 2XSLCYK-J** shielded cables are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

**TECHNOFLEX 2XSLCY-J** cables are suitable for indoor and **TECHNOFLEX 2XSLCYK-J** cables for outdoor fixed and movable installations.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow,
- insulated conductors laid-up in a cable core,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 2XSLCY-J** cable, transparent or grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 2XSLCYK-J** cable, black RAL 9005, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOFLEX 2XSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## TECHNOFLEX 2XSLCY-J TECHNOFLEX 2XSLCYK-J

### CHARACTERISTICS

Operating voltage $U_0/U$	0.6/1 kV	Operating temperature range	
Voltage test	4 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 90°C	up to 12 mm	5 x cable diameter
at short-circuit	+250°C	from 12 to 20 mm	7.5 x cable diameter
Effective capacitance (according		from 20 mm	10 x cable diameter
to different cross-sections)		flexible for diameters:	
conductor/conductor	70 to 250 nF/km	up to 12 mm	10 x cable diameter
conductor/screen	110 to 410 nF/km	from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0250

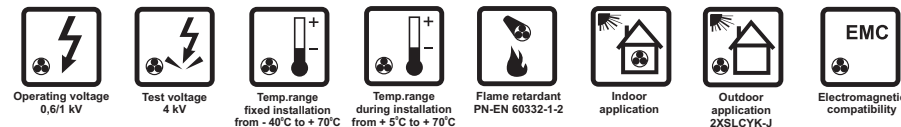
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
2XSLCY-J						
1667 002	4x1,5	9.9	13.3	23	80.2	140
1667 001	4x2,5	11.4	7.98	32	124.5	194
1667 003	4x4	13.3	4.95	42	186.5	276
1667 004	4x6	15.3	3.3	54	278.5	377
1667 005	4x10	18.4	1.91	75	442.6	594
1667 006	4x16	22.1	1.21	100	708.9	911
1667 007	4x25	25.3	0.78	127	1098.8	1291
1667 008	4x35	28.3	0.554	158	1501.6	1682
1667 009	4x50	36.3	0.386	192	2133.5	2492
1667 010	4x70	43.7	0.272	246	3003.1	3619
1667 011	4x95	48.0	0.206	298	4003.2	4614
1667 012	4x120	53.4	0.161	346	5159.6	5915
1667 013	4x150	57.9	0.129	399	6307.0	7010
1667 014	4x185	63.9	0.106	456	7764.3	8638
1667 015	4x240	73.1	0.0801	538	9926.7	11217

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
2XSLCYK-J						
1604 004	4x1,5	9.9	13.3	23	80.2	144
1604 001	4x2,5	11.4	7.98	32	124.5	199
1604 005	4x4	13.3	4.95	42	186.5	282
1604 006	4x6	15.3	3.3	54	278.5	384
1604 007	4x10	18.4	1.91	75	442.6	603
1604 008	4x16	22.1	1.21	100	708.9	924
1604 009	4x25	25.3	0.78	127	1098.8	1306
1604 002	4x35	28.3	0.554	158	1501.6	1700
1604 010	4x50	36.3	0.386	192	2133.5	2517
1604 011	4x70	43.7	0.272	246	3003.1	3654
1604 003	4x95	48.0	0.206	298	4003.2	4655
1604 012	4x120	53.4	0.161	346	5159.6	5963
1604 013	4x150	57.9	0.129	399	6307.0	7065
1604 014	4x185	63.9	0.106	456	7764.3	8703
1604 015	4x240	73.1	0.0801	538	9926.7	11299

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 3PIus 2XSLCY-J TECHNOFLEX 3PIus 2XSLCYK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 3PIus 2XSLCY-J** and **TECHNOFLEX 3PIus 2XSLCYK-J** shielded cables with symmetrical construction are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

The division of the protective conductor into 3 evenly distributed in the cable core (on the circumference of 120°) enabled to achieve a symmetrical distribution of fields and reduce the emission of electromagnetic interference into the environment in relation to the cables with four conductors.

**TECHNOFLEX 3PIus 2XSLCY-J** cables are suitable for indoor and **TECHNOFLEX 3PIus 2XSLCYK-J** cables for outdoor fixed and movable installations.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow (protective conductor divided into 3 wires in a green-yellow),
- insulated conductors laid-up in a cable core, construction 3+3,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 3PIus 2XSLCY-J** cable, transparent or grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 3PIus 2XSLCYK-J** cable, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEX 3PIus 2XSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 3Plus 2XSLCY-J**  
**TECHNOFLEX 3Plus 2XSLCYK-J**

**CHARACTERISTICS**

Operating voltage Uo/U	0.6/1 kV	Operating temperature range	
Voltage test	4 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 90°C	up to 12 mm	5 x cable diameter
at short-circuit	+250°C	from 12 to 20 mm	7.5 x cable diameter
Effective capacitance (according		from 20 mm	10 x cable diameter
to different cross-sections)		flexible for diameters:	
conductor/conductor	70 to 250 nF/km	up to 12 mm	10 x cable diameter
conductor/screen	110 to 410 nF/km	from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0250

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
3Plus 2XSLCY-J						
1718 001	3x1,5+3G0,25	9.0	13.3	23	70.9	118
1718 002	3x2,5+3G0,5	10.5	7.98	32	111.6	168
1718 003	3x4+3G0,75	12.0	4.95	42	166.1	228
1718 004	3x6+3G1	14.0	3.3	54	244.5	322
1718 005	3x10+3G1,5	16.8	1.91	75	383.1	492
1718 006	3x16+3G2,5	19.9	1.21	100	617.3	750
1718 007	3x25+3G4	22.9	0.78	127	959.0	1433
1718 008	3x35+3G6	25.5	0.554	158	1320.1	1425
1718 009	3x50+3G10	32.8	0.386	192	1916.3	2147
1718 010	3x70+3G10	39.1	0.272	246	2533.9	2920
1718 011	3x95+3G16	43.3	0.206	298	3510.8	3910
1718 012	3x120+3G16	47.6	0.161	346	4270.8	4733
1718 013	3x150+3G25	52.0	0.129	399	5524.0	5916
1718 014	3x185+3G35	57.4	0.106	456	6881.6	7333
1718 015	3x240+3G50	65.8	0.0801	538	9021.7	9687

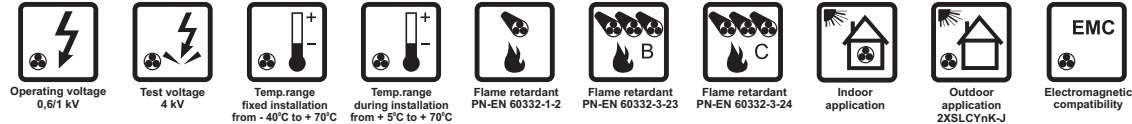
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
3Plus 2XSLCYK-J						
1719 001	3x1,5+3G0,25	9.0	13.3	23	70.9	121
1719 002	3x2,5+3G0,5	10.5	7.98	32	111.6	172
1719 003	3x4+3G0,75	12.0	4.95	42	166.1	232
1719 004	3x6+3G1	14.0	3.3	54	244.5	327
1719 005	3x10+3G1,5	16.8	1.91	75	383.1	498
1719 006	3x16+3G2,5	19.9	1.21	100	617.3	758
1719 007	3x25+3G4	22.9	0.78	127	959.0	1443
1719 008	3x35+3G6	25.5	0.554	158	1320.1	1436
1719 009	3x50+3G10	32.8	0.386	192	1916.3	2163
1719 010	3x70+3G10	39.1	0.272	246	2533.9	2942
1719 011	3x95+3G16	43.3	0.206	298	3510.8	3936
1719 012	3x120+3G16	47.6	0.161	346	4270.8	4763
1719 013	3x150+3G25	52.0	0.129	399	5524.0	5948
1719 014	3x185+3G35	57.4	0.106	456	6881.6	7373
1719 015	3x240+3G50	65.8	0.0801	538	9021.7	9739

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOFLEX 2XSLCYn-J TECHNOFLEX 2XSLCYnK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 2XSLCYn-J** and **TECHNOFLEX 2XSLCYnK-J** shielded cables are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

**TECHNOFLEX 2XSLCYn-J** cables are suitable for indoor and **TECHNOFLEX 2XSLCYnK-J** cables for outdoor fixed and movable installations.

Sheathing PVC of high oxygen index is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow,
- insulated conductors laid-up in a cable core,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 2XSLCYn-J** cable, grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 2XSLCYnK-J** cable, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEX 2XSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 2XSLCYn-J**  
**TECHNOFLEX 2XSLCYnK-J**

**CHARACTERISTICS**

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	4 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 90°C	up to 12 mm	5 x cable diameter
at short-circuit	+250°C	from 12 to 20 mm	7.5 x cable diameter
Effective capacitance (according		from 20 mm	10 x cable diameter
to different cross-sections)		flexible for diameters:	
conductor/conductor	70 to 250 nF/km	up to 12 mm	10 x cable diameter
conductor/screen	110 to 410 nF/km	from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0250

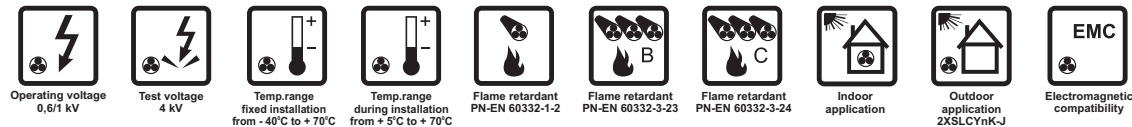
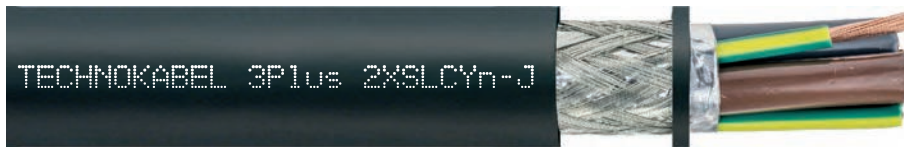
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
<b>2XSLCYn-J</b>						
1705 007	4x1,5	10.5	13.3	23	80.2	169
1705 006	4x2,5	12.0	7.98	32	124.5	228
1705 005	4x4	13.7	4.95	42	186.5	310
1705 004	4x6	15.7	3.3	54	278.5	416
1705 008	4x10	18.6	1.91	75	442.6	633
1705 009	4x16	22.1	1.21	100	708.9	953
1705 003	4x25	25.3	0.78	127	1098.8	1341
1705 010	4x35	28.3	0.554	158	1501.6	1742
1705 011	4x50	36.3	0.386	192	2133.5	2577
1705 012	4x70	43.7	0.272	246	3003.1	3736
1705 002	4x95	48.0	0.206	298	4003.2	4749
1705 001	4x120	53.4	0.161	346	5159.6	6077
1705 013	4x150	57.9	0.129	399	6307.0	7192
1705 014	4x185	63.9	0.106	456	7764.3	8854
1705 015	4x240	73.1	0.0801	538	9926.7	11489

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
<b>2XSLCYnK-J</b>						
1717 001	4x1,5	10.5	13.3	23	80.2	169
1717 002	4x2,5	12.0	7.98	32	124.5	228
1717 003	4x4	13.7	4.95	42	186.5	310
1717 004	4x6	15.7	3.3	54	278.5	416
1717 005	4x10	18.6	1.91	75	442.6	633
1717 006	4x16	22.1	1.21	100	708.9	953
1717 007	4x25	25.3	0.78	127	1098.8	1341
1717 008	4x35	28.3	0.554	158	1501.6	1742
1717 009	4x50	36.3	0.386	192	2133.5	2577
1717 010	4x70	43.7	0.272	246	3003.1	3736
1717 011	4x95	48.0	0.206	298	4003.2	4749
1717 012	4x120	53.4	0.161	346	5159.6	6077
1717 013	4x150	57.9	0.129	399	6307.0	7192
1717 014	4x185	63.9	0.106	456	7764.3	8854
1717 015	4x240	73.1	0.0801	538	9926.7	11489

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 3Plus 2XSLCYn-J TECHNOFLEX 3Plus 2XSLCYnK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 3Plus 2XSLCYn-J** and **TECHNOFLEX 3Plus 2XSLCYnK-J** shielded cables with symmetrical construction are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

The division of the protective conductor into 3 evenly distributed in the cable core (on the circumference of 120°) enabled to achieve a symmetrical distribution of fields and reduce the emission of electromagnetic interference into the environment in relation to the cables with four conductors.

**TECHNOFLEX 3Plus 2XSLCYn-J** cables are suitable for indoor and **TECHNOFLEX 3Plus 2XSLCYnK-J** cables for outdoor fixed and movable installations.

Sheathing PVC of high oxygen index is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow (protective conductor divided into 3 wires in a green-yellow),
- insulated conductors laid-up in a cable core, construction 3+3,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 3Plus 2XSLCYn-J** cable, grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 3Plus 2XSLCYnK-J** cable, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOFLEX 3Plus 2XSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 3Plus 2XSLCYn-J**  
**TECHNOFLEX 3Plus 2XSLCYnK-J**

**CHARACTERISTICS**

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	4 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 90°C	up to 12 mm	5 x cable diameter
at short-circuit	+250°C	from 12 to 20 mm	7.5 x cable diameter
Effective capacitance (according		from 20 mm	10 x cable diameter
to different cross-sections)		flexible for diameters:	
conductor/conductor	70 to 250 nF/km	up to 12 mm	10 x cable diameter
conductor/screen	110 to 410 nF/km	from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0250

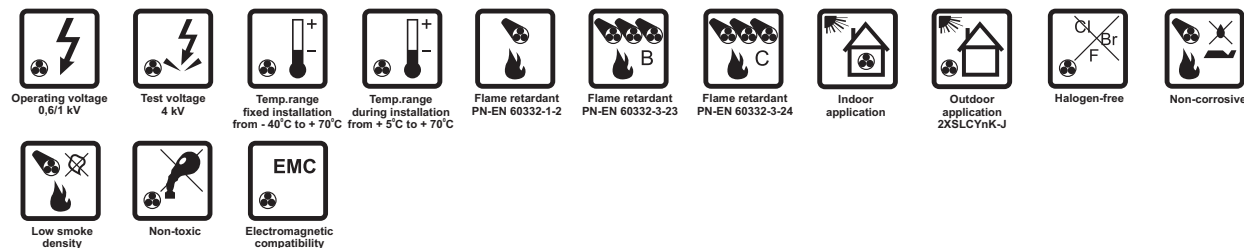
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
3Plus 2XSLCYn-J						
1599 008	3x1,5+3G0,25	9.8	13.3	23	70.9	148
1599 002	3x2,5+3G0,5	11.1	7.98	32	111.6	199
1599 003	3x4+3G0,75	12.6	4.95	42	166.1	263
1599 004	3x6+3G1	14.4	3.30	54	244.5	357
1599 005	3x10+3G1,5	17.0	1.91	75	383.1	528
1599 006	3x16+3G2,5	19.9	1.21	100	617.3	785
1599 001	3x25+3G4	22.9	0.780	127	959.0	1475
1599 007	3x35+3G6	25.5	0.554	158	1320.1	1475
1599 009	3x50+3G10	32.8	0.386	192	1916.3	2220
1599 010	3x70+3G10	39.1	0.272	246	2533.9	3016
1599 011	3x95+3G16	43.3	0.206	298	3510.8	4027
1599 012	3x120+3G16	47.6	0.161	346	4270.8	4866
1599 013	3x150+3G25	52.0	0.129	399	5524.0	6068
1599 014	3x185+3G35	57.4	0.106	456	6881.6	7514
1599 015	3x240+3G50	65.8	0.0801	538	9021.7	9917

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
3Plus 2XSLCYnK-J						
1694 002	3x1,5+3G0,25	9.8	13.3	23	70.9	148
1694 003	3x2,5+3G0,5	11.1	7.98	32	111.6	199
1694 004	3x4+3G0,75	12.6	4.95	42	166.1	263
1694 005	3x6+3G1	14.4	3.30	54	244.5	357
1694 006	3x10+3G1,5	17.0	1.91	75	383.1	528
1694 007	3x16+3G2,5	19.9	1.21	100	617.3	785
1694 008	3x25+3G4	22.9	0.780	127	959.0	1475
1694 009	3x35+3G6	25.5	0.554	158	1320.1	1475
1694 010	3x50+3G10	32.8	0.386	192	1916.3	2220
1694 011	3x70+3G10	39.1	0.272	246	2533.9	3016
1694 012	3x95+3G16	43.3	0.206	298	3510.8	4027
1694 013	3x120+3G16	47.6	0.161	346	4270.8	4866
1694 014	3x150+3G25	52.0	0.129	399	5524.0	6068
1694 015	3x185+3G35	57.4	0.106	456	6881.6	7514
1694 001	3x240+3G50	65.8	0.0801	538	9021.7	9917

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 2XSLCH-J TECHNOFLEX 2XSLCHK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 2XSLCH-J** and **TECHNOFLEX 2XSLCHK-J** shielded halogen free cables are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 2XSLCH-J** cables are suitable for indoor and **TECHNOFLEX 2XSLCHK-J** cables for outdoor fixed and movable installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow,
- insulated conductors laid-up in a cable core,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- halogen free compound (HFFR) cable sheath of **TECHNOFLEX 2XSLCH-J** cable, grey RAL 7001, other colours also available,
- halogen free compound (HFFR) cable sheath of **TECHNOFLEX 2XSLCHK-J** cable, black RAL 9005, other colours also available.

## TECHNOFLEX 2XSLCH-J TECHNOFLEX 2XSLCHK-J

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Minimum bending radius static for diameters:	
Voltage test	4 kV rms	up to 12 mm	5 x cable diameter
Insulation resistance, minimum	200 MΩ·km	from 12 to 20 mm	7.5 x cable diameter
Shielding efficiency, approximate	75 dB	from 20 mm	10 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	flexible for diameters:	
at short-circuit	+ 250°C	up to 12 mm	10 x cable diameter
		from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
Effective capacitance (according to different cross-sections)		Corrosivity of emitted gases per pH appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
conductor/conductor	70 to 250 nF/km	conductivity appr.	6.8
conductor/screen	110 to 410 nF/km		0.4 μS/mm
Operating temperature range for fixed installation	from - 40 to + 70°C	Smoke density	PN-EN 61034-2, IEC 61034-2
for movable installation	from + 5 to + 70°C	light transmittance, minimum	70 %
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0250

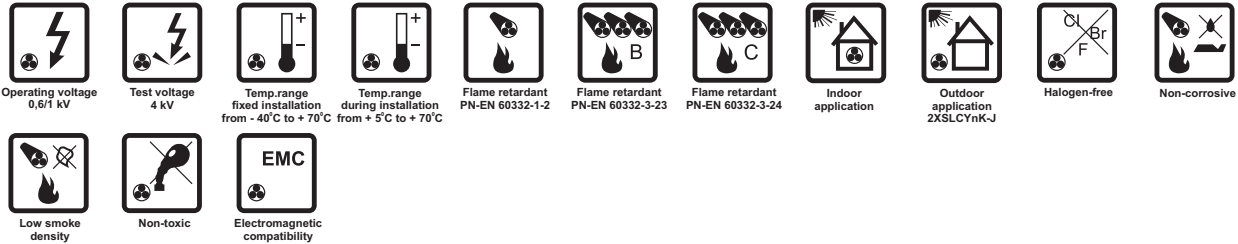
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
<b>2XSLCH-J</b>						
1676 004	4x1,5	9.9	13.3	23	80.2	152
1676 001	4x2,5	11.4	7.98	32	124.5	208
1676 005	4x4	13.3	4.95	42	186.5	294
1676 006	4x6	15.3	3.3	54	278.5	397
1676 007	4x10	18.4	1.91	75	442.6	620
1676 008	4x16	22.1	1.21	100	708.9	947
1676 009	4x25	25.3	0.78	127	1098.8	1334
1676 002	4x35	28.3	0.554	158	1501.6	1734
1676 003	4x50	36.3	0.386	192	2133.5	2565
1676 010	4x70	43.7	0.272	246	3003.1	3721
1676 011	4x95	48.0	0.206	298	4003.2	4731
1676 012	4x120	53.4	0.161	346	5159.6	6055
1676 013	4x150	57.9	0.129	399	6307.0	7168
1676 014	4x185	63.9	0.106	456	7764.3	8825
1676 015	4x240	73.1	0.0801	538	9926.7	11453

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
<b>2XSLCHK-J</b>						
1702 004	4x1,5	9.9	13.3	23	80.2	152
1702 001	4x2,5	11.4	7.98	32	124.5	208
1702 002	4x4	13.3	4.95	42	186.5	294
1702 005	4x6	15.3	3.3	54	278.5	397
1702 006	4x10	18.4	1.91	75	442.6	620
1702 007	4x16	22.1	1.21	100	708.9	947
1702 003	4x25	25.3	0.78	127	1098.8	1334
1702 008	4x35	28.3	0.554	158	1501.6	1734
1702 009	4x50	36.3	0.386	192	2133.5	2565
1702 010	4x70	43.7	0.272	246	3003.1	3721
1702 011	4x95	48.0	0.206	298	4003.2	4731
1702 012	4x120	53.4	0.161	346	5159.6	6055
1702 013	4x150	57.9	0.129	399	6307.0	7168
1702 014	4x185	63.9	0.106	456	7764.3	8825
1702 015	4x240	73.1	0.0801	538	9926.7	11453

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 3Plus 2XSLCH-J TECHNOFLEX 3Plus 2XSLCHK-J

### MOTOR SUPPLY CABLES



### APPLICATIONS

**TECHNOFLEX 3Plus 2XSLCH-J** and **TECHNOFLEX 3Plus 2XSLCHK-J** shielded halogen free cables with symmetrical construction are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

The division of the protective conductor into 3 evenly distributed in the cable core (on the circumference of 120°) enabled to achieve a symmetrical distribution of fields and reduce the emission of electromagnetic interference into the environment in relation to the cables with four conductors.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 3Plus 2XSLCH-J** cables are suitable for indoor and **TECHNOFLEX 3Plus 2XSLCHK-J** cables for outdoor fixed and movable installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow (protective conductor divided into 3 wires in a green-yellow),
- insulated conductors laid-up in a cable core, construction 3+3,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- halogen free compound (HFFR) cable sheath of **TECHNOFLEX 3Plus 2XSLCH-J** cable, grey RAL 7001, other colours also available,
- halogen free compound (HFFR) cable sheath of **TECHNOFLEX 3Plus 2XSLCHK-J** cable, black RAL 9005, other colours also available.

**TECHNOFLEX 3Plus 2XSLCH-J**  
**TECHNOFLEX 3Plus 2XSLCHK-J**

**CHARACTERISTICS**

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Minimum bending radius	
Voltage test	4 kV rms	static for diameters:	
Insulation resistance, minimum	200 MΩ·km	up to 12 mm	5 x cable diameter
Shielding efficiency, approximate	75 dB	from 12 to 20 mm	7.5 x cable diameter
Conductor temperature limit		from 20 mm	10 x cable diameter
in work conditions	+ 90°C	flexible for diameters:	
at short-circuit	+ 250°C	up to 12 mm	10 x cable diameter
Effective capacitance (according		from 12 to 20 mm	15 x cable diameter
to different cross-sections)		from 20 mm	20 x cable diameter
conductor/conductor	70 to 250 nF/km	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2,
conductor/screen	110 to 410 nF/km	pH appr.	IEC 60754-2
Operating temperature range		conductivity appr.	6.8
for fixed installation	from - 40 to + 70°C	Smoke density	0.4 μS/mm
for movable installation	from + 5 to + 70°C	light transmittance,	PN-EN 61034-2, IEC 61034-2
		minimum	70 %
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0250

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
<b>3Plus 2XSLCH-J</b>						
1720 001	3x1,5+3G0,25	9.0	13.3	23	70.9	128
1720 002	3x2,5+3G0,5	10.5	7.98	32	111.6	180
1720 003	3x4+3G0,75	12.0	4.95	42	166.1	242
1720 004	3x6+3G1	14.0	3.3	54	244.5	340
1720 005	3x10+3G1,5	16.8	1.91	75	383.1	516
1720 006	3x16+3G2,5	19.9	1.21	100	617.3	780
1720 007	3x25+3G4	22.9	0.78	127	959.0	1470
1720 008	3x35+3G6	25.5	0.554	158	1320.1	1468
1720 009	3x50+3G10	32.8	0.386	192	1916.3	2210
1720 010	3x70+3G10	39.1	0.272	246	2533.9	3003
1720 011	3x95+3G16	43.3	0.206	298	3510.8	4011
1720 012	3x120+3G16	47.6	0.161	346	4270.8	4849
1720 013	3x150+3G25	52.0	0.129	399	5524.0	6047
1720 014	3x185+3G35	57.4	0.106	456	6881.6	7489
1720 015	3x240+3G50	65.8	0.0801	538	9021.7	9886

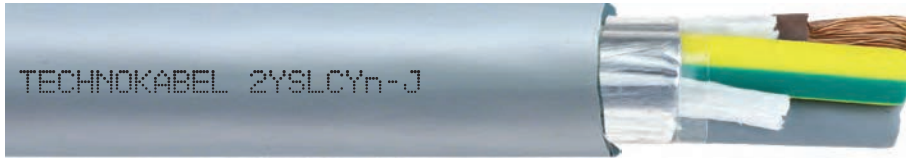
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
<b>3Plus 2XSLCHK-J</b>						
1721 001	3x1,5+3G0,25	9.0	13.3	23	70.9	128
1721 002	3x2,5+3G0,5	10.5	7.98	32	111.6	180
1721 003	3x4+3G0,75	12.0	4.95	42	166.1	242
1721 004	3x6+3G1	14.0	3.3	54	244.5	340
1721 005	3x10+3G1,5	16.8	1.91	75	383.1	516
1721 006	3x16+3G2,5	19.9	1.21	100	617.3	780
1721 007	3x25+3G4	22.9	0.78	127	959.0	1470
1721 008	3x35+3G6	25.5	0.554	158	1320.1	1468
1721 009	3x50+3G10	32.8	0.386	192	1916.3	2210
1721 010	3x70+3G10	39.1	0.272	246	2533.9	3003
1721 011	3x95+3G16	43.3	0.206	298	3510.8	4011
1721 012	3x120+3G16	47.6	0.161	346	4270.8	4849
1721 013	3x150+3G25	52.0	0.129	399	5524.0	6047
1721 014	3x185+3G35	57.4	0.106	456	6881.6	7489
1721 015	3x240+3G50	65.8	0.0801	538	9021.7	9886

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## TECHNOFLEX 2YSLCYn-J TECHNOFLEX 2YSLCYnK-J

### MOTOR SUPPLY CABLES



Operating voltage  
0,6/1 kV



Test voltage  
2,5 kV



Temp. range  
fixed installation  
from -40°C to +70°C



Temp. range  
during installation  
from +5°C to +70°C



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-23



Flame retardant  
PN-EN 60332-3-24



Indoor  
application



Outdoor  
application  
2YSLCYnK-J



Electromagnetic  
compatibility

## APPLICATIONS

**TECHNOFLEX 2YSLCYn-J** and **TECHNOFLEX 2YSLCYnK-J** shielded cables are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

**TECHNOFLEX 2YSLCYn-J** cables are suitable for indoor and **TECHNOFLEX 2YSLCYnK-J** cables for outdoor fixed and movable installations.

Sheathing PVC of high oxygen index is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- polyethylene (PE) insulation - black, blue, brown and green-yellow,
- insulated conductors laid-up in a cable core,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEX 2YSLCYn-J** cable, grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEX 2YSLCYnK-J** cable, black RAL 9005, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOFLEX 2YSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOFLEX 2YSLCYn-J**  
**TECHNOFLEX 2YSLCYnK-J**

**CHARACTERISTICS**

Operating voltage $U_0/U$	0.6/1 kV	Minimum bending radius static for diameters:	
Voltage test	2.5 kV rms	up to 12 mm	5 x cable diameter
Insulation resistance, minimum	200 MΩ·km	from 12 to 20 mm	7.5 x cable diameter
Shielding efficiency, approximate	75 dB	from 20 mm	10 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	flexible for diameters:	
Effective capacitance (according to different cross-sections)		up to 12 mm	10 x cable diameter
conductor/conductor	70 to 250 nF/km	from 12 to 20 mm	15 x cable diameter
conductor/screen	110 to 410 nF/km	from 20 mm	20 x cable diameter
Operating temperature range for fixed installation	from - 40 to + 70°C	Cable combustibility	flame retardant
for movable installation	from + 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		$\geq 25 \text{ mm}^2$	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		$< 25 \text{ mm}^2$	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0250

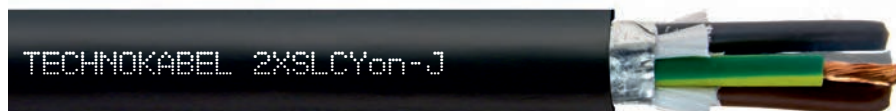
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
2YSLCYn-J						
1531 003	4x1,5	10.5	13.3	18	80.2	169
1531 010	4x2,5	12.0	7.98	26	124.5	228
1531 004	4x4	13.7	4.95	34	186.5	311
1531 011	4x6	15.7	3.30	44	278.5	417
1531 009	4x10	18.6	1.91	61	442.6	635
1531 005	4x16	22.1	1.21	82	708.9	955
1531 012	4x25	25.3	0.780	108	1098.8	1344
1531 013	4x35	28.3	0.554	135	1501.6	1745
1531 008	4x50	36.3	0.386	168	2133.5	2581
1531 014	4x70	43.7	0.272	207	3003.1	3742
1531 007	4x95	48.0	0.206	250	4003.2	4756
1531 015	4x120	53.4	0.161	292	5159.6	6085
1531 016	4x150	57.9	0.129	335	6307.0	7202
1531 017	4x185	63.9	0.106	385	7764.3	8865
1531 018	4x240	73.1	0.0801	453	9926.7	11504

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
2YSLCYnK-J						
1455 004	4x1,5	10.5	13.3	18	80.2	169
1455 005	4x2,5	12.0	7.98	26	124.5	228
1455 001	4x4	13.7	4.95	34	186.5	311
1455 002	4x6	15.7	3.30	44	278.5	417
1455 003	4x10	18.6	1.91	61	442.6	635
1455 006	4x16	22.1	1.21	82	708.9	955
1455 007	4x25	25.3	0.780	108	1098.8	1344
1455 008	4x35	28.3	0.554	135	1501.6	1745
1455 009	4x50	36.3	0.386	168	2133.5	2581
1455 010	4x70	43.7	0.272	207	3003.1	3742
1455 011	4x95	48.0	0.206	250	4003.2	4756
1455 012	4x120	53.4	0.161	292	5159.6	6085
1455 013	4x150	57.9	0.129	335	6307.0	7202
1455 014	4x185	63.9	0.106	385	7764.3	8865
1455 015	4x240	73.1	0.0801	453	9926.7	11504

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOFLEX 2XSLCYon-J

### MOTOR SUPPLY CABLES



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -40°C to +70°C



Temp. range  
during installation  
from +5°C to +70°C



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-23



Flame retardant  
PN-EN 60332-3-24



Indoor  
application



Outdoor  
application



Increased  
oil resistance



Electromagnetic  
compatibility

## APPLICATIONS

**TECHNOFLEX 2XSLCYon-J** shielded cables are intended for connecting converters or inverters with motors in industrial installations, production plants, air-conditioners and other equipment operating in dry and wet locations.

Small mutual capacitance and higher, up to 90°C, operating temperature limit of conductors is offered due to application of cross-linked polyethylene insulation.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for indoor and outdoor installations connecting fixed and movable equipment.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- cross-linked polyethylene (XLPE) insulation - black, blue, brown and green-yellow,
- insulated conductors laid-up in a cable core,
- double screen of aluminium laminated tape and braid of tinned copper wire, braid shield of coverage bigger than 80%,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOFLEX 2XSLCH-J** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## TECHNOFLEX 2XSLCYon-J

### CHARACTERISTICS

Operating voltage $U_0/U$	0.6/1 kV	Operating temperature range	
Voltage test	4 kV rms	for fixed installation	from - 40 to + 70°C
Insulation resistance, minimum	200 MΩ·km	for movable installation	from + 5 to + 70°C
Shielding efficiency, approximate	75 dB	Minimum bending radius	
Conductor temperature limit		static for diameters:	
in work conditions	+ 90°C	up to 12 mm	5 x cable diameter
at short-circuit	+250°C	from 12 to 20 mm	7.5 x cable diameter
Effective capacitance (according		from 20 mm	10 x cable diameter
to different cross-sections)		flexible for diameters:	
conductor/conductor	70 to 250 nF/km	up to 12 mm	10 x cable diameter
conductor/screen	110 to 410 nF/km	from 12 to 20 mm	15 x cable diameter
		from 20 mm	20 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	DIN VDE 0250

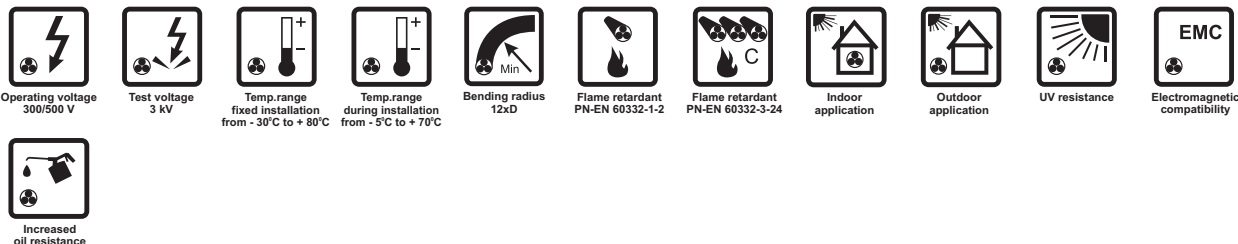
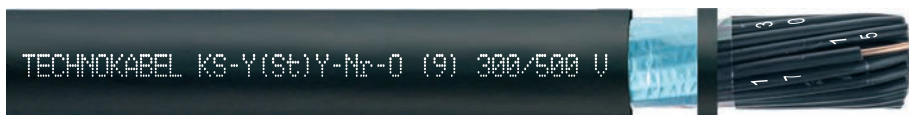
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
1394 001	4x1,5	9.9	13.3	23	80.2	148
1394 009	4x2,5	11.4	7.98	32	124.5	203
1394 005	4x4	13.3	4.95	42	186.5	288
1394 010	4x6	15.3	3.3	54	278.5	391
1394 002	4x10	18.4	1.91	75	442.6	611
1394 003	4x16	22.1	1.21	100	708.9	935
1394 004	4x25	25.3	0.78	127	1098.8	1320
1394 011	4x35	28.3	0.554	158	1501.6	1717

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, max.	Current-carrying capacity at temp. 30°C	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	A	kg/km	kg/km
1394 006	4x50	36.3	0.386	192	2133.5	2541
1394 007	4x70	43.7	0.272	246	3003.1	3688
1394 008	4x95	48.0	0.206	298	4003.2	4693
1394 012	4x120	53.4	0.161	346	5159.6	6010
1394 013	4x150	57.9	0.129	399	6307.0	7117
1394 014	4x185	63.9	0.106	456	7764.3	8765
1394 015	4x240	73.1	0.0801	538	9926.7	11376

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TECHNOKONTROL KS-Y(St)Y-Nr-O (9) 300/500 V**  
**TECHNOKONTROL KS-Y(St)Yżo-Nr-O (9) 300/500 V**

**CONTROL AND POWER SUPPLY CABLES**



**APPLICATIONS**

**TECHNOKONTROL KS-Y(St)Y-Nr-O (9) 300/500 V** and **TECHNOKONTROL KS-Y(St)Yżo-Nr-O (9) 300/500 V** are overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

**CONSTRUCTION**

- bare annealed copper single wire round conductors, meeting requirements of class 1 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, additional green-yellow protective conductor located in the outer layer in **TECHNOKONTROL KS-Y(St)Yżo-Nr-O (9) 300/500 V** cable,
- insulated conductors laid-up in a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005, other colours also available.

## TECHNOKONTROL KS-Y(St)Y-Nr-O (9) 300/500 V TECHNOKONTROL KS-Y(St)Yżo-Nr-O (9) 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5	4.0
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41	4.61
Capacitance between conductors at 1 kHz, appr.	nF/km	160	170	180	180	200	210

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	during operation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	during installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	+ 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 150°C	Oil resistance	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
			PN-EN 60811-404

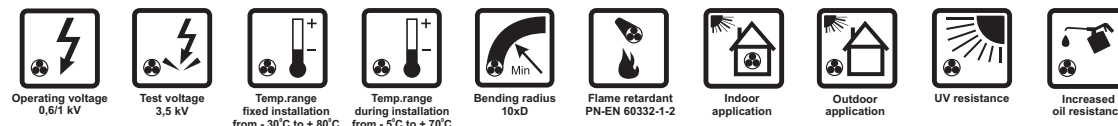
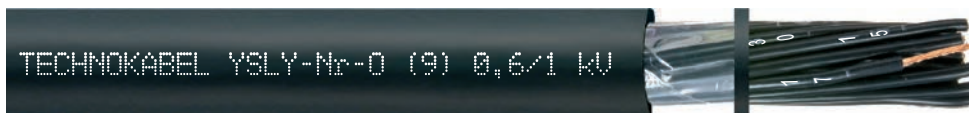
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0980 003	2x0,5	6.2	14.4	57
0980 004	3x0,5	6.4	19.2	64
0980 005	4x0,5	6.9	24.0	74
0980 006	5x0,5	7.3	28.8	85
0980 007	7x0,5	7.8	38.4	100
0980 008	10x0,5	9.4	53.0	131
0980 009	14x0,5	10.1	72.0	162
0980 010	19x0,5	11.0	96.0	205
0980 011	24x0,5	12.6	120.0	250
0980 012	27x0,5	12.8	134.0	270
0980 013	30x0,5	13.3	149.0	295
0980 014	36x0,5	14.2	178.0	345
0980 015	2x0,75	6.6	21.6	69
0980 016	3x0,75	6.8	28.8	78
0980 017	4x0,75	7.3	36.0	91
0980 018	5x0,75	7.8	43.2	105
0980 019	7x0,75	8.3	58.0	126
0980 020	10x0,75	10.1	79.0	166
0980 021	14x0,75	10.9	108.0	210
0980 022	19x0,75	11.9	144.0	265
0980 023	24x0,75	13.7	180.0	325
0980 024	27x0,75	14.0	202.0	355
0980 025	30x0,75	14.4	223.0	385
0980 026	36x0,75	15.5	266.0	455
0980 001	2x1	6.9	28.8	80
0980 027	3x1	7.2	38.4	91
0980 028	4x1	7.7	48.0	106
0980 029	5x1	8.2	58.0	124
0980 030	7x1	8.8	77.0	150
0980 031	10x1	10.7	106.0	199
0980 032	14x1	11.5	144.0	255
0980 033	19x1	12.7	192.0	320

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0980 034	24x1	14.6	240.0	395
0980 035	27x1	14.9	269.0	435
0980 036	30x1	15.4	298.0	470
0980 037	36x1	16.5	355.0	555
0980 038	2x1,5	7.8	43.2	106
0980 039	3x1,5	8.1	58.0	124
0980 040	4x1,5	8.7	72.0	146
0980 002	5x1,5	9.4	86.0	171
0980 041	7x1,5	10.1	115.0	210
0980 042	10x1,5	12.5	158.0	280
0980 043	14x1,5	13.5	216.0	360
0980 044	19x1,5	14.9	288.0	460
0980 045	24x1,5	17.3	360.0	565
0980 046	27x1,5	17.6	403.0	620
0980 047	30x1,5	18.7	446.0	695
0980 048	2x2,5	8.6	72.0	146
0980 049	3x2,5	9.0	96.0	172
0980 050	4x2,5	9.7	120.0	210
0980 051	5x2,5	10.5	144.0	245
0980 052	7x2,5	11.3	192.0	300
0980 053	10x2,5	14.1	264.0	405
0980 054	14x2,5	15.3	360.0	525
0980 055	19x2,5	16.9	480.0	675
0980 056	2x4	9.9	115.0	215
0980 057	3x4	10.5	154.0	255
0980 058	4x4	11.4	192.0	305
0980 059	5x4	12.3	230.0	365
0980 060	7x4	13.4	307.0	455
0980 061	10x4	16.8	422.0	615
0980 062	14x4	18.7	576.0	815

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YSLY-Nr-O (9) 0,6/1 kV

### CONTROL AND POWER SUPPLY CABLES



### APPLICATIONS

**TECHNOKONTROL YSLY-Nr-O (9) 0,6/1 kV** are cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in a cable core,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YSLYv-Nr-O (9) 0,6/1 kV** - cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL YSLY-Nr-O (9) 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	100	110	120	130	140

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0995 003	2 x 0,5	6.0	9.6	51
0995 004	3 x 0,5	6.3	14.4	60
0995 005	4 x 0,5	6.9	19.2	72
0995 006	5 x 0,5	7.5	24.0	87
0995 007	6 x 0,5	8.1	28.8	102
0995 008	7 x 0,5	8.1	33.6	105
0995 009	8 x 0,5	8.8	38.4	122
0995 010	10 x 0,5	10.5	48.0	154
0995 011	12 x 0,5	10.8	57.6	172
0995 012	14 x 0,5	11.4	67.2	194
0995 013	16 x 0,5	12.2	76.8	224
0995 014	18 x 0,5	12.8	86.4	249
0995 015	19 x 0,5	12.8	91.2	253
0995 016	21 x 0,5	13.5	100.8	279
0995 017	24 x 0,5	15.2	115.2	324
0995 018	27 x 0,5	15.5	129.6	352
0995 019	30 x 0,5	16.1	144.0	384
0995 020	36 x 0,5	17.3	172.8	453
0995 021	37 x 0,5	17.3	177.6	456
0995 022	40 x 0,5	18.0	192.0	493
0995 023	44 x 0,5	19.9	211.2	558
0995 024	48 x 0,5	20.2	230.4	596
0995 025	52 x 0,5	20.8	249.6	638
0995 026	56 x 0,5	21.4	268.8	682
0995 027	60 x 0,5	22.0	288.0	727
0995 028	2 x 0,75	6.4	14.4	61
0995 029	3 x 0,75	6.7	21.6	71
0995 030	4 x 0,75	7.3	28.8	85
0995 031	5 x 0,75	8.0	36.0	104
0995 032	6 x 0,75	8.7	43.2	124
0995 033	7 x 0,75	8.7	50.4	128
0995 034	8 x 0,75	9.4	57.6	149
0995 035	10 x 0,75	11.2	72.0	187
0995 036	12 x 0,75	11.6	86.4	211

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0995 037	14 x 0,75	12.4	100.8	243
0995 038	16 x 0,75	13.1	115.2	275
0995 039	18 x 0,75	13.8	129.6	307
0995 040	19 x 0,75	13.8	136.8	312
0995 041	21 x 0,75	14.7	151.2	351
0995 042	24 x 0,75	16.3	172.8	398
0995 043	27 x 0,75	16.7	194.4	435
0995 044	30 x 0,75	17.3	216.0	475
0995 045	36 x 0,75	19.0	259.2	579
0995 046	37 x 0,75	19.0	266.4	584
0995 047	40 x 0,75	19.7	288.0	630
0995 048	44 x 0,75	21.4	316.8	691
0995 049	48 x 0,75	21.7	345.6	740
0995 050	52 x 0,75	22.3	374.4	792
0995 051	56 x 0,75	23.4	403.2	870
0995 052	60 x 0,75	24.1	432.0	928
0995 001	2 x 1,0	6.7	19.2	69
0995 053	3 x 1,0	7.1	28.8	83
0995 054	4 x 1,0	7.8	38.4	101
0995 055	5 x 1,0	8.5	48.0	124
0995 056	6 x 1,0	9.2	57.6	147
0995 057	7 x 1,0	9.2	67.2	153
0995 058	8 x 1,0	10.2	76.8	183
0995 059	10 x 1,0	12.2	96.0	230
0995 060	12 x 1,0	12.5	115.2	259
0995 061	14 x 1,0	13.2	134.4	293
0995 062	16 x 1,0	13.9	153.6	331
0995 063	18 x 1,0	14.9	172.8	377
0995 064	19 x 1,0	14.9	182.4	384
0995 065	21 x 1,0	15.6	201.6	424
0995 066	24 x 1,0	17.4	230.4	481
0995 067	27 x 1,0	17.8	259.2	527
0995 068	30 x 1,0	18.8	288.0	593
0995 069	36 x 1,0	20.3	345.6	703



## TECHNOKONTROL YSLY-Nr-O (9) 0,6/1 kV

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0995 070	37 x 1,0	20.3	355.2	709
0995 071	40 x 1,0	21.1	384.0	766
0995 072	44 x 1,0	23.2	422.4	860
0995 073	48 x 1,0	23.6	460.8	922
0995 074	52 x 1,0	24.3	499.2	988
0995 075	56 x 1,0	25.0	537.6	1058
0995 076	60 x 1,0	25.7	576.0	1129
0995 077	2 x 1,5	7.3	28.8	86
0995 078	3 x 1,5	7.7	43.2	104
0995 079	4 x 1,5	8.4	57.6	127
0995 080	5 x 1,5	9.2	72.0	157
0995 081	6 x 1,5	10.3	86.4	192
0995 082	7 x 1,5	10.3	100.8	202
0995 083	8 x 1,5	11.1	115.2	234
0995 084	10 x 1,5	13.3	144.0	294
0995 085	12 x 1,5	13.7	172.8	334
0995 086	14 x 1,5	14.6	201.6	385
0995 087	16 x 1,5	15.4	230.4	435
0995 088	18 x 1,5	16.3	259.2	487
0995 089	19 x 1,5	16.3	273.6	498
0995 090	21 x 1,5	17.1	302.4	550
0995 091	24 x 1,5	19.4	345.6	642
0995 092	27 x 1,5	19.9	388.8	705
0995 093	30 x 1,5	20.6	432.0	771
0995 094	36 x 1,5	22.2	518.4	915
0995 095	37 x 1,5	22.2	532.8	925
0995 096	40 x 1,5	23.5	576.0	1022
0995 097	44 x 1,5	25.4	633.6	1120
0995 098	48 x 1,5	25.9	691.2	1204

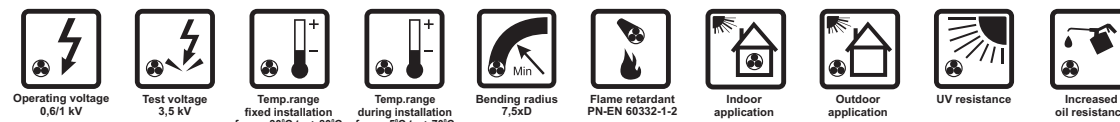
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0995 099	52 x 1,5	26.6	748.8	1291
0995 100	56 x 1,5	27.4	806.4	1384
0995 101	60 x 1,5	28.2	864.0	1478
0995 102	2 x 2,5	8.1	48.0	114
0995 103	3 x 2,5	8.6	72.0	142
0995 104	4 x 2,5	9.5	96.0	176
0995 105	5 x 2,5	10.6	120.0	222
0995 106	6 x 2,5	11.5	144.0	264
0995 002	7 x 2,5	11.5	168.0	280
0995 107	8 x 2,5	12.7	192.0	331
0995 108	10 x 2,5	15.1	240.0	414
0995 109	12 x 2,5	15.6	288.0	474
0995 110	14 x 2,5	16.5	336.0	540
0995 111	16 x 2,5	17.4	384.0	612
0995 112	18 x 2,5	18.8	432.0	704
0995 113	19 x 2,5	18.8	456.0	720
0995 114	21 x 2,5	19.7	504.0	796
0995 115	24 x 2,5	22.0	576.0	905
0995 116	27 x 2,5	22.5	648.0	997
0995 117	30 x 2,5	23.7	720.0	1114
0995 118	36 x 2,5	25.6	864.0	1325
0995 119	37 x 2,5	25.6	888.0	1341
0995 120	40 x 2,5	26.6	960.0	1450
0995 121	44 x 2,5	28.8	1056.0	1590
0995 122	48 x 2,5	29.3	1152.0	1712
0995 123	52 x 2,5	30.1	1248.0	1839
0995 124	56 x 2,5	31.0	1344.0	1973
0995 125	60 x 2,5	32.2	1440.0	2126

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YSLY-P-Nr-O (9) 0,6/1 kV

### CONTROL AND POWER SUPPLY CABLES



### APPLICATIONS

**TECHNOKONTROL YSLY-P-Nr-O (9) 0,6/1 kV** are multipair cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YSLYv-P-Nr-O (9) 0,6/1 kV** - cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL YSLY-P-Nr-O (9) 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	100	110	120	130	140

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

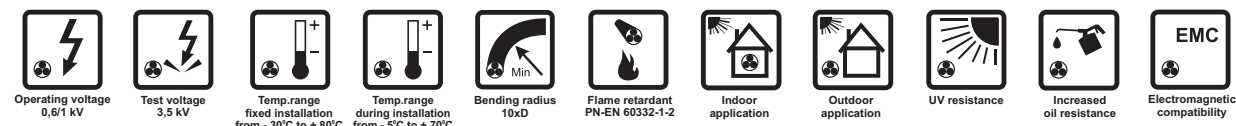
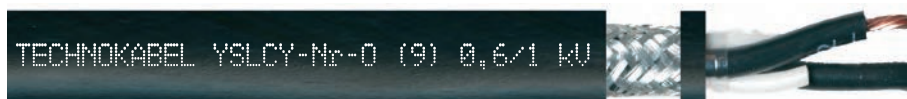
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1709 001	2 x 2 x 0,5	10.1	19.2	128
1709 002	3 x 2 x 0,5	10.6	28.8	158
1709 003	4 x 2 x 0,5	11.6	38.4	182
1709 004	5 x 2 x 0,5	12.7	48.0	209
1709 005	6 x 2 x 0,5	13.7	57.6	243
1709 006	7 x 2 x 0,5	13.7	67.2	253
1709 007	8 x 2 x 0,5	14.6	76.8	277
1709 008	10 x 2 x 0,5	16.5	96.0	335
1709 009	12 x 2 x 0,5	17.3	115.2	377
1709 010	16 x 2 x 0,5	19.5	153.6	470
1709 011	18 x 2 x 0,5	20.5	172.8	516
1709 012	20 x 2 x 0,5	21.5	192.0	561
1709 013	25 x 2 x 0,5	24.1	240.0	701
1709 014	30 x 2 x 0,5	26.1	288.0	810
1709 015	40 x 2 x 0,5	30.1	384.0	1060
1709 016	50 x 2 x 0,5	33.2	480.0	1279
1709 017	2 x 2 x 0,75	10.7	28.8	147
1709 018	3 x 2 x 0,75	11.3	43.2	187
1709 019	4 x 2 x 0,75	12.4	57.6	217
1709 020	5 x 2 x 0,75	13.5	72.0	248
1709 021	6 x 2 x 0,75	14.7	86.4	292
1709 022	7 x 2 x 0,75	14.7	100.8	305
1709 023	8 x 2 x 0,75	15.6	115.2	335
1709 024	10 x 2 x 0,75	17.7	144.0	407
1709 025	12 x 2 x 0,75	18.5	172.8	459
1709 026	16 x 2 x 0,75	21.0	230.4	577
1709 027	20 x 2 x 0,75	23.5	288.0	712
1709 028	2 x 2 x 1,0	11.4	38.4	173
1709 029	3 x 2 x 1,0	12.0	57.6	219
1709 030	4 x 2 x 1,0	13.1	76.8	253

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1709 031	5 x 2 x 1,0	14.4	96.0	293
1709 032	6 x 2 x 1,0	15.6	115.2	345
1709 033	7 x 2 x 1,0	15.6	134.4	362
1709 034	8 x 2 x 1,0	16.6	153.6	399
1709 035	10 x 2 x 1,0	18.9	192.0	486
1709 036	12 x 2 x 1,0	19.8	230.4	551
1709 037	16 x 2 x 1,0	22.4	307.2	696
1709 038	20 x 2 x 1,0	25.1	384.0	857
1709 039	2 x 2 x 1,5	12.3	57.6	213
1709 040	3 x 2 x 1,5	13.0	86.4	271
1709 041	4 x 2 x 1,5	14.2	115.2	316
1709 042	5 x 2 x 1,5	15.6	144.0	367
1709 043	6 x 2 x 1,5	17.0	172.8	435
1709 044	7 x 2 x 1,5	17.0	201.6	461
1709 045	8 x 2 x 1,5	18.2	230.4	510
1709 046	10 x 2 x 1,5	20.7	288.0	623
1709 047	12 x 2 x 1,5	21.6	345.6	709
1709 048	16 x 2 x 1,5	25.0	460.8	922
1709 049	20 x 2 x 1,5	27.5	576.0	1110
1709 050	2 x 2 x 2,5	13.7	96.0	279
1709 051	3 x 2 x 2,5	14.5	144.0	363
1709 052	4 x 2 x 2,5	16.0	192.0	431
1709 053	5 x 2 x 2,5	17.6	240.0	503
1709 054	6 x 2 x 2,5	19.2	288.0	598
1709 055	7 x 2 x 2,5	19.2	336.0	639
1709 056	8 x 2 x 2,5	20.5	384.0	708
1709 057	10 x 2 x 2,5	23.8	480.0	890
1709 058	12 x 2 x 2,5	24.9	576.0	1015
1709 059	16 x 2 x 2,5	28.6	768.0	1319
1709 060	20 x 2 x 2,5	31.6	960.0	1597

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YSLCY-Nr-O (9) 0,6/1 kV

### CONTROL AND POWER SUPPLY CABLES



### APPLICATIONS

**TECHNOKONTROL YSLCY-Nr-O (9) 0,6/1 kV** are overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in a cable core,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YSLCEY-Nr-O (9) 0,6/1 kV** - cables with drain wire stranded of tin-plated annealed copper wires (class 2), laid under a shield.

**TECHNOKONTROL YSLCYv-Nr-O (9) 0,6/1 kV** - cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL YSLCY-Nr-O (9) 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	120	130	140	150	170

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	Operating temperature range for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0994 004	1 x 0,5	4.3	9.6	29
0994 005	2 x 0,5	6.5	19.3	52
0994 006	3 x 0,5	6.8	24.2	63
0994 007	4 x 0,5	7.4	30.2	76
0994 008	5 x 0,5	8.0	36.2	92
0994 009	6 x 0,5	8.7	46.2	112
0994 010	7 x 0,5	8.7	51.0	116
0994 011	8 x 0,5	9.4	57.6	134
0994 012	10 x 0,5	11.1	71.1	164
0994 013	12 x 0,5	11.4	82.0	185
0994 014	14 x 0,5	12.2	92.6	213
0994 015	16 x 0,5	12.8	103.9	240
0994 016	18 x 0,5	13.4	114.9	266
0994 017	19 x 0,5	13.4	119.7	269
0994 018	21 x 0,5	14.1	131.1	297
0994 019	24 x 0,5	15.9	156.4	347
0994 020	27 x 0,5	16.2	171.7	377
0994 021	30 x 0,5	16.8	187.9	410
0994 022	36 x 0,5	18.0	220.7	483
0994 023	37 x 0,5	18.0	225.5	486
0994 024	40 x 0,5	19.1	241.9	541
0994 025	41 x 0,5	19.7	248.5	574
0994 026	1 x 0,75	4.5	12.6	33
0994 027	2 x 0,75	6.9	24.4	59
0994 028	3 x 0,75	7.2	32.2	73
0994 029	4 x 0,75	7.8	40.6	90
0994 030	5 x 0,75	8.6	53.1	113
0994 031	6 x 0,75	9.3	62.2	134
0994 032	7 x 0,75	9.3	69.4	139
0994 033	8 x 0,75	10.2	78.3	165
0994 034	10 x 0,75	11.8	96.9	196
0994 035	12 x 0,75	12.4	112.3	228
0994 036	14 x 0,75	13.0	128.3	257
0994 037	16 x 0,75	13.7	144.5	290

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0994 038	18 x 0,75	14.6	160.7	330
0994 039	19 x 0,75	14.6	167.9	335
0994 040	21 x 0,75	15.4	190.8	376
0994 041	24 x 0,75	17.0	217.4	421
0994 042	27 x 0,75	17.4	240.3	461
0994 043	30 x 0,75	18.0	263.9	502
0994 044	34 x 0,75	19.7	296.5	601
0994 045	1 x 1,0	4.7	16.0	38
0994 001	2 x 1,0	7.2	29.8	67
0994 046	3 x 1,0	7.6	40.2	85
0994 047	4 x 1,0	8.4	55.0	109
0994 048	5 x 1,0	9.1	67.0	133
0994 049	6 x 1,0	10.0	77.8	161
0994 050	7 x 1,0	10.0	87.4	168
0994 051	8 x 1,0	10.8	99.1	194
0994 052	10 x 1,0	12.8	123.1	238
0994 053	12 x 1,0	13.1	142.9	270
0994 054	14 x 1,0	13.8	164.0	306
0994 055	16 x 1,0	14.7	185.0	352
0994 056	18 x 1,0	15.6	213.1	400
0994 057	19 x 1,0	15.6	222.7	407
0994 058	21 x 1,0	16.3	244.0	449
0994 059	24 x 1,0	18.1	278.4	504
0994 060	27 x 1,0	18.9	308.4	570
0994 061	30 x 1,0	19.5	339.1	621
0994 062	1 x 1,5	5.0	20.8	44
0994 002	2 x 1,5	7.8	40.6	82
0994 003	3 x 1,5	8.3	59.6	109
0994 063	4 x 1,5	9.0	76.6	135
0994 064	5 x 1,5	10.0	92.2	169
0994 065	6 x 1,5	10.9	109.0	201
0994 066	7 x 1,5	10.9	123.4	212
0994 067	8 x 1,5	11.7	139.8	245

## TECHNOKONTROL YSLCY-Nr-O (9) 0,6/1 kV

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0994 068	10 x 1,5	13.9	173.8	300
0994 069	12 x 1,5	14.5	203.7	350
0994 070	14 x 1,5	15.3	241.0	404
0994 071	16 x 1,5	16.1	272.2	457
0994 072	18 x 1,5	17.0	303.8	510
0994 073	19 x 1,5	17.0	318.2	521
0994 074	21 x 1,5	17.8	349.5	575
0994 075	24 x 1,5	20.1	398.6	665
0994 076	25 x 1,5	20.6	414.6	710
0994 077	1 x 2,5	5.4	32.1	57
0994 078	2 x 2,5	8.7	65.4	111

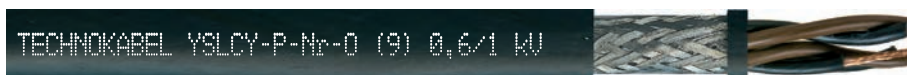
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0994 079	3 x 2,5	9.2	91.0	145
0994 080	4 x 2,5	10.3	117.7	186
0994 081	5 x 2,5	11.2	143.4	229
0994 082	6 x 2,5	12.3	169.7	278
0994 083	7 x 2,5	12.3	193.7	295
0994 084	8 x 2,5	13.3	220.3	341
0994 085	10 x 2,5	15.8	280.9	424
0994 086	12 x 2,5	16.3	330.4	489
0994 087	14 x 2,5	17.2	381.2	558
0994 088	16 x 2,5	18.1	432.0	632
0994 089	18 x 2,5	19.5	483.1	727

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YSLCY-P-Nr-O (9) 0,6/1 kV

### CONTROL AND POWER SUPPLY CABLES



### APPLICATIONS

**TECHNOKONTROL YSLCY-P-Nr-O (9) 0,6/1 kV** are multipair overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Paired structure decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- cable screen wrapped in polyester tape,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YSLCYv-P-Nr-O (9) 0,6/1 kV** - cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL YSLCY-P-Nr-O (9) 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	120	120	120	130	140

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1710 001	2 x 2 x 0,5	10.7	39.0	129
1710 002	3 x 2 x 0,5	11.2	50.5	145
1710 003	4 x 2 x 0,5	12.2	62.0	173
1710 004	5 x 2 x 0,5	13.3	74.5	202
1710 005	6 x 2 x 0,5	14.3	86.6	231
1710 006	7 x 2 x 0,5	14.3	96.2	250
1710 007	10 x 2 x 0,5	17.2	139.7	342
1710 008	12 x 2 x 0,5	18.0	161.3	387
1710 009	14 x 2 x 0,5	19.2	184.3	436
1710 010	16 x 2 x 0,5	20.2	206.6	484
1710 011	18 x 2 x 0,5	21.2	228.8	532
1710 012	20 x 2 x 0,5	22.2	251.2	580
1710 013	24 x 2 x 0,5	24.6	318.4	720
1710 014	25 x 2 x 0,5	25.0	329.8	744
1710 015	30 x 2 x 0,5	27.2	412.4	888
1710 016	2 x 2 x 0,75	11.3	50.5	146
1710 017	3 x 2 x 0,75	11.9	66.1	168
1710 018	4 x 2 x 0,75	13.0	83.3	203
1710 019	5 x 2 x 0,75	14.1	100.5	238
1710 020	6 x 2 x 0,75	15.3	118.0	274
1710 021	7 x 2 x 0,75	15.3	132.4	298
1710 022	10 x 2 x 0,75	18.4	191.4	409
1710 023	12 x 2 x 0,75	19.2	222.7	465
1710 024	14 x 2 x 0,75	20.5	255.5	526
1710 025	16 x 2 x 0,75	21.7	288.0	587
1710 026	18 x 2 x 0,75	23.4	342.2	692
1710 027	20 x 2 x 0,75	24.4	375.3	753
1710 028	2 x 2 x 1,0	12.0	61.5	169
1710 029	3 x 2 x 1,0	12.6	82.2	194
1710 030	4 x 2 x 1,0	13.7	104.3	234

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1710 031	5 x 2 x 1,0	15.0	126.9	278
1710 032	6 x 2 x 1,0	16.3	156.1	328
1710 033	7 x 2 x 1,0	16.3	175.3	359
1710 034	10 x 2 x 1,0	19.6	243.1	484
1710 035	12 x 2 x 1,0	20.5	284.3	553
1710 036	14 x 2 x 1,0	21.9	327.0	628
1710 037	16 x 2 x 1,0	23.7	391.5	747
1710 038	18 x 2 x 1,0	24.9	435.0	822
1710 039	20 x 2 x 1,0	26.0	478.0	895
1710 040	2 x 2 x 1,5	12.9	83.0	204
1710 041	3 x 2 x 1,5	13.6	113.6	236
1710 042	4 x 2 x 1,5	14.8	145.5	290
1710 043	5 x 2 x 1,5	16.3	184.9	352
1710 044	6 x 2 x 1,5	17.7	218.0	408
1710 045	7 x 2 x 1,5	17.7	246.8	450
1710 046	10 x 2 x 1,5	21.4	344.7	612
1710 047	12 x 2 x 1,5	22.3	405.1	703
1710 048	14 x 2 x 1,5	24.5	490.9	849
1710 049	16 x 2 x 1,5	25.9	554.4	946
1710 050	18 x 2 x 1,5	27.4	643.8	1073
1710 051	20 x 2 x 1,5	29.0	707.8	1198
1710 052	2 x 2 x 2,5	14.3	125.0	263
1710 053	3 x 2 x 2,5	15.1	175.1	313
1710 054	4 x 2 x 2,5	16.7	234.1	396
1710 055	5 x 2 x 2,5	18.3	287.1	474
1710 056	6 x 2 x 2,5	19.9	340.0	552
1710 057	7 x 2 x 2,5	19.9	388.0	614
1710 058	10 x 2 x 2,5	24.7	568.6	890
1710 059	12 x 2 x 2,5	25.8	669.1	1021

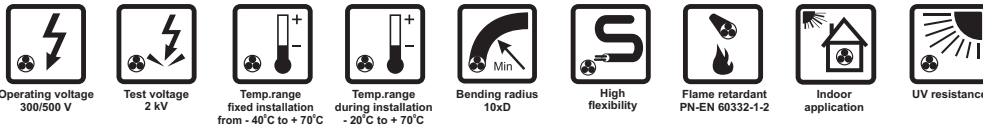
Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## H05VVH6-F nx4G...

### FLAT LIFT CABLES



### APPLICATIONS

**H05VVH6-F nx4G...** are flexible power and control cables designed for trolley systems, transport lines, machine tools, especially on hosting devices, lift, crane worked in dry and wet locations.

The cables are designed to offer high flexibility combined with tensile strength.

Cable outer sheath is oil-resistant.

The cables are suitable for connecting fixed and movable equipment in dry or wet locations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, green-yellow protective conductor located in the quad near the axis of the cable,
- insulated conductors twisted into quads,
- quads of insulated conductors laid parallel side by side along the cable,
- black PVC cable sheath, other colours also available.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.75</b>	<b>1</b>
DC conductor resistance at 20°C, maximum	Ω/km	26.0	19.5
DC insulation resistance at 70°C, minimum	MΩ·km	0.009	0.012

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range for fixed equipment	from - 40 to + 70°C
Voltage test	2000 V rms	for movable equipment	from - 20 to + 70°C
Maximum length of the free suspension	35 m	Minimum bending radius	10 x cable height
Maximum speed movement	1.6 m/s	Cable combustibility	flame retardant
Conductor temperature limit in work conditions	+ 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 160°C	Reference standards	PN-EN 50214

Product No.	Number of conductors x conductor cross-section	Cable outer dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0893 002	3x4G1	8.0x20.1	115.0	315.0
0893 001	4x4G1	8.0x25.9	154.0	415.0

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## H07VVH6-F

### FLAT LIFT CABLES



Operating voltage  
450/750 V



Test voltage  
2,5 kV



Temp. range  
fixed installation  
from - 40°C to + 70°C



Temp. range  
during installation  
- 20°C to + 70°C



Bending radius  
10xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



UV resistance

### APPLICATIONS

**H07VVH6-F** are flexible power and control cables designed for trolley systems, transport lines, machine tools, especially on hosting devices, lift, crane worked in dry and wet locations.

The cables are designed to offer high flexibility combined with tensile strength.

Cable outer sheath is oil-resistant.

The cables are suitable for connecting fixed and movable equipment in dry or wet locations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code:
  - up to 5 cores - in accordance with PN-HD 308,
  - from 6 cores - black and white conductor number printed on it,
  - optional green-yellow protective conductor located near the axis of the cable,
- insulated conductors laid parallel side by side in groups along the cable,
- black PVC cable sheath, other colours also available.

## H07VVH6-F

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1.5	2.5	4.0	6.0	10
DC conductor resistance at 20°C, maximum	Ω/km	13.30	7.98	4.95	3.30	1.91
DC insulation resistance at 70°C, minimum	MΩ·km	0.0100	0.0090	0.0070	0.0060	0.0056

Operating voltage U <sub>o</sub> /U	450/750 V	Operating temperature range for fixed equipment	from - 40 to + 70°C
Voltage test	2500 V rms	for movable equipment	from - 20 to + 70°C
Maximum length of the free suspension	35 m	Minimum bending radius	10 x cable height
Maximum speed movement	1.6 m/s	Cable combustibility	flame retardant
Conductor temperature limit in work conditions	+ 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at short-circuit	+ 150°C	Reference standards	DIN VDE 0281 part 404, HD 359

Product No.	Number of conductors x conductor cross-section	Cable height (appr.)	Cable width (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km	kg/km
0551 014	3 G 1,5	4.9 do 5.2	11.5 do 12.5	43.2	108
0551 015	3 G 2,5	5.6 do 5.9	14.0 do 15.0	72.0	159
0551 011	4 G 1,5	4.9 do 5.2	14.5 do 15.5	57.6	140
0551 002	4 G 2,5	5.6 do 5.9	17.5 do 18.5	96.0	204
0551 007	4 G 4,0	6.8 do 7.1	20.0 do 21.0	153.6	289
0551 006	4 G 6,0	7.5 do 7.8	22.0 do 23.0	230.4	383
0551 008	4 G 10	8.7 do 9.2	27.5 do 29.0	384.0	615
0551 016	5 G 1,5	4.9 do 5.2	17.5 do 18.5	72.0	172
0551 017	5 G 2,5	5.6 do 5.9	21.0 do 22.0	120.0	251
0551 018	5 G 4	6.8 do 7.1	24.0 do 25.0	192.0	357
0551 019	5 G 6	7.5 do 7.8	26.5 do 28.0	288.0	475
0551 020	5 G 10	8.7 do 9.2	33.5 do 35.0	480.0	765

Product No.	Number of conductors x conductor cross-section	Cable height (appr.)	Cable width (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km	kg/km
0551 021	6 G 1,5	4.9 do 5.2	21.5 do 22.5	86.4	211
0551 022	6 G 2,5	5.6 do 5.9	25.5 do 27.0	144.0	309
0551 012	7 G 1,5	4.9 do 5.2	24.5 do 25.5	100.8	244
0551 013	7 G 2,5	5.6 do 5.9	29.5 do 31.0	168.0	356
0551 001	8 G 1,5	4.9 do 5.2	27.0 do 28.5	115.2	276
0551 003	8 G 2,5	5.6 do 5.9	33.0 do 34.5	192.0	402
0551 023	9 G 1,5	4.9 do 5.2	31.0 do 32.5	129.6	315
0551 024	9 G 2,5	5.6 do 5.9	38.0 do 40.0	216.0	461
0551 009	10 G 1,5	4.9 do 5.2	34.0 do 36.0	144.0	347
0551 025	10 G 2,5	5.6 do 5.9	41.5 do 43.5	240.8	507
0551 004	12 G 1,5	4.9 do 5.2	40.0 do 42.0	172.0	411
0551 005	12 G 2,5	5.6 do 5.9	48.5 do 51.0	288.0	601

Other cross-sections and conductor counts available on request.

**Attention:** For cable with green-yellow protective conductor, instead mark „x” in cable symbol is used letter ”G”.

Cable marking, for example:

H07VVH6-F 4x1,5 mm<sup>2</sup> – cable without green-yellow protective conductor,

H07VVH6-F 4G1,5 mm<sup>2</sup> – cable with green-yellow protective conductor.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## KASTER

### SELF SUPPORTING CONTROL CABLES



Operating voltage  
300/500 V



Test voltage  
2,5 kV



Temp. range  
fixed installation  
from -30°C to +80°C



Temp. range  
during installation  
-20°C to +70°C



Bending radius  
10xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

### APPLICATIONS

**KASTER** are cables intended for connecting control panels and consoles with lift, crane, transport and other devices, at once with them suspended by two steel support elements integrated with cable.

The cables are suitable for indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires meeting requirements of class 6 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification, green-yellow protective conductor located in the outer layer,
- insulated conductors laid-up in layers,
- each layer wrapped in nonwoven tape,
- two steel support elements placed in the same plane along the cable, at both sides of cable,
- black (RAL 9005) PVC cable sheath, extruded on the cable core and two steel support elements.

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	2.5 kV rms	for fixed installation	from - 30 to + 80°C
DC conductor resistance at 20°C, maximum		for movable installation	from - 20 to + 70°C
conductor 1.5 mm <sup>2</sup>	13.3 Ω/km	Minimum bending radius	10 x cable height
DC insulation resistance at 70°C, minimum	0.010 MΩ·km	Cable combustibility	flame retardant
Maximum length of the free suspension	35 m	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Conductor temperature limit		Reference standards	PN-87/E-90050
in work conditions	+ 70°C		
at short-circuit	+ 150°C		

Product No.	Number of conductors x conductor cross-section * mm <sup>2</sup>	Cable height (appr.) mm	Cable width (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0552 001	12G1,5	14.3	24.5	173.0	409
0552 006	16G1,5	15.8	26.0	230.5	503
0552 003	18G1,5	16.6	26.8	259.5	554
0552 002	20G1,5	17.4	27.6	288.0	596
0552 004	24G1,5	19.8	30.0	346.0	708

\* Attention : Letter „G” means green-yellow protective conductor.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LiYY

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



Operating voltage  
300/300 V



Test voltage  
core <math>< 0,5\text{mm}^2</math>  
1,2 kV



Test voltage  
core >=0,5mm<sup>2</sup>  
1,5 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

## APPLICATIONS

**TECHNOTRONIK LiYY** are control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LiYY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LiY11Y** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LiHH** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LiYY** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	350	350	500	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	144.0	79.0	57.0	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	90	90	100	100	120	120	130	130

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0162 007	2 x 0,14	3.0	2.69	13
0162 010	3 x 0,14	3.1	4.0	15
0162 013	4 x 0,14	3.4	5.4	17
0162 014	5 x 0,14	3.7	6.7	21
0162 015	6 x 0,14	4.0	8.1	25
0162 016	7 x 0,14	4.0	9.4	25
0162 017	8 x 0,14	4.3	10.8	28
0162 018	10 x 0,14	5.2	13.4	37
0162 019	12 x 0,14	5.4	16.1	42
0162 020	14 x 0,14	5.6	18.8	46
0162 021	16 x 0,14	5.9	21.5	52
0162 257	18 x 0,14	6.3	24.2	59
0162 192	20 x 0,14	6.6	26.9	65
0162 272	21 x 0,14	6.6	28.2	65
0162 240	27 x 0,14	7.4	36.3	79
0162 273	30 x 0,14	7.7	40.3	86
0162 022	36 x 0,14	8.3	48.4	102
0162 138	40 x 0,14	8.6	53.8	110
0162 274	44 x 0,14	9.7	59.1	129
0162 275	48 x 0,14	9.9	64.5	138
0162 276	52 x 0,14	10.2	69.9	147
0162 277	56 x 0,14	10.5	75.3	158
0162 278	61 x 0,14	10.8	82.0	168
0162 024	2 x 0,25	3.3	4.8	17
0162 026	3 x 0,25	3.5	7.2	20
0162 029	4 x 0,25	3.8	9.6	24
0162 136	5 x 0,25	4.1	12.0	29
0162 031	6 x 0,25	4.5	14.4	34
0162 032	7 x 0,25	4.5	16.8	35
0162 033	8 x 0,25	4.8	19.2	38
0162 035	10 x 0,25	5.9	24.0	52
0162 036	12 x 0,25	6.0	28.8	58
0162 037	14 x 0,25	6.4	33.6	66
0162 262	16 x 0,25	6.7	38.4	75
0162 279	18 x 0,25	7.1	43.2	83
0162 038	20 x 0,25	7.4	48.0	92
0162 280	21 x 0,25	7.4	50.4	92

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0162 263	24 x 0,25	8.2	57.6	105
0162 281	27 x 0,25	8.4	64.8	115
0162 040	30 x 0,25	8.7	72.0	126
0162 041	36 x 0,25	9.8	86.4	157
0162 264	40 x 0,25	10.2	96.0	170
0162 282	44 x 0,25	11.0	105.6	187
0162 283	48 x 0,25	11.2	115.2	201
0162 284	52 x 0,25	11.5	124.8	215
0162 265	56 x 0,25	12.1	134.4	235
0162 285	61 x 0,25	12.4	146.4	252
0162 105	2 x 0,34	3.5	6.5	20
0162 109	3 x 0,34	3.7	9.8	24
0162 112	4 x 0,34	4.0	13.1	29
0162 115	5 x 0,34	4.4	16.3	36
0162 116	6 x 0,34	4.8	19.6	42
0162 117	7 x 0,34	4.8	22.8	44
0162 118	8 x 0,34	5.4	26.1	51
0162 119	10 x 0,34	6.3	32.6	65
0162 120	12 x 0,34	6.5	39.2	74
0162 162	14 x 0,34	6.8	45.7	84
0162 254	16 x 0,34	7.2	52.2	95
0162 174	18 x 0,34	7.6	58.8	106
0162 121	20 x 0,34	8.0	65.3	118
0162 286	21 x 0,34	8.0	68.5	118
0162 287	27 x 0,34	9.1	88.1	149
0162 266	30 x 0,34	9.8	97.9	171
0162 288	36 x 0,34	10.6	117.5	203
0162 267	40 x 0,34	11.0	130.6	220
0162 289	44 x 0,34	12.1	143.6	248
0162 290	48 x 0,34	12.3	156.7	266
0162 291	52 x 0,34	12.6	169.7	284
0162 292	56 x 0,34	13.0	182.8	305
0162 122	61 x 0,34	13.4	199.1	327
0162 044	2 x 0,5	4.0	9.6	25
0162 046	3 x 0,5	4.2	14.4	31
0162 050	4 x 0,5	4.6	19.2	37

## TECHNOTRONIK LIYY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
0162 051	5 x 0,5	5.3	24.0	49
0162 052	6 x 0,5	5.8	28.8	58
0162 054	7 x 0,5	5.8	33.6	61
0162 056	8 x 0,5	6.2	38.4	70
0162 057	10 x 0,5	7.3	48.0	85
0162 058	12 x 0,5	7.5	57.6	97
0162 203	14 x 0,5	7.9	67.2	110
0162 059	16 x 0,5	8.4	76.8	125
0162 224	18 x 0,5	8.9	86.4	140
0162 293	20 x 0,5	9.7	96.0	164
0162 294	21 x 0,5	9.7	100.8	166
0162 295	27 x 0,5	11.0	129.6	206
0162 268	30 x 0,5	11.4	144.0	225
0162 296	36 x 0,5	12.6	172.8	273
0162 269	40 x 0,5	13.0	192.0	298
0162 297	44 x 0,5	14.3	211.2	332
0162 298	48 x 0,5	14.5	230.4	356
0162 299	52 x 0,5	14.9	249.6	381
0162 300	56 x 0,5	15.4	268.8	409
0162 060	61 x 0,5	15.9	292.8	439
0162 062	2 x 0,75	4.4	14.4	32
0162 063	3 x 0,75	4.6	21.6	39
0162 065	4 x 0,75	5.3	28.8	51
0162 068	5 x 0,75	5.8	36.0	63
0162 070	6 x 0,75	6.3	43.2	74
0162 072	7 x 0,75	6.3	50.4	78
0162 130	8 x 0,75	6.8	57.6	90
0162 074	10 x 0,75	8.0	72.0	111
0162 075	12 x 0,75	8.3	86.4	127
0162 142	16 x 0,75	9.6	115.2	172
0162 076	20 x 0,75	10.7	144.0	213
0162 220	24 x 0,75	12.1	172.8	251
0162 077	27 x 0,75	12.3	194.4	275
0162 301	30 x 0,75	12.8	216.0	302
0162 302	36 x 0,75	14.0	259.2	365
0162 303	40 x 0,75	14.5	288.0	398
0162 304	42 x 0,75	15.1	302.4	425
0162 305	44 x 0,75	15.7	316.8	436
0162 306	48 x 0,75	16.0	345.6	469
0162 307	52 x 0,75	16.5	374.4	504
0162 308	56 x 0,75	17.0	403.2	540
0162 309	61 x 0,75	17.5	439.2	581

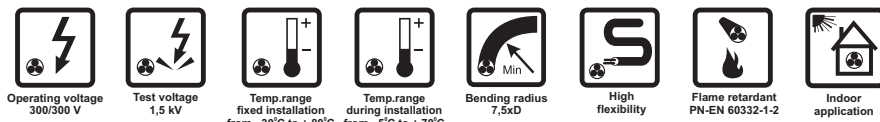
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
0162 079	2 x 1,0	4.7	19.2	39
0162 080	3 x 1,0	5.2	28.8	51
0162 081	4 x 1,0	5.7	38.4	62
0162 093	5 x 1,0	6.3	48.0	77
0162 082	6 x 1,0	6.8	57.6	92
0162 084	7 x 1,0	6.8	67.2	97
0162 184	10 x 1,0	8.7	96.0	139
0162 194	12 x 1,0	9.0	115.2	159
0162 086	16 x 1,0	10.5	153.6	216
0162 270	20 x 1,0	11.8	192.0	273
0162 226	25 x 1,0	13.5	240.0	338
0162 310	27 x 1,0	13.5	259.2	349
0162 311	30 x 1,0	14.2	288.0	388
0162 312	36 x 1,0	15.3	345.6	462
0162 313	40 x 1,0	15.9	384.0	505
0162 087	2 x 1,5	5.7	28.8	56
0162 089	3 x 1,5	6.0	43.2	70
0162 091	4 x 1,5	6.6	57.6	87
0162 092	5 x 1,5	7.3	72.0	108
0162 095	6 x 1,5	7.9	86.4	128
0162 096	7 x 1,5	7.9	100.8	137
0162 098	9 x 1,5	10.6	129.6	196
0162 099	12 x 1,5	11.0	172.8	236
0162 100	16 x 1,5	12.4	230.4	310
0162 314	20 x 1,5	14.0	288.0	392
0162 188	24 x 1,5	15.6	345.6	455
0162 102	2 x 2,5	6.5	48.0	79
0162 103	3 x 2,5	6.9	72.0	101
0162 123	4 x 2,5	7.6	96.0	126
0162 104	5 x 2,5	8.4	120.0	158
0162 315	6 x 2,5	9.6	144.0	198
0162 271	7 x 2,5	9.6	168.0	212
0162 316	10 x 2,5	12.5	240.0	307
0162 317	12 x 2,5	13.0	288.0	355
0162 318	16 x 2,5	14.6	384.0	467
0162 319	19 x 2,5	15.5	456.0	539
0162 320	24 x 2,5	18.4	576.0	687

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LiYY-Nr

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LiYY-Nr** are control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LiYY-Nr-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LiY11Y-Nr** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LiHH-Nr** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LiYY-Nr** - specially designed intrinsically safe cable.



## TECHNOTRONIK LiYY-Nr

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	500	500	500	500	500
Voltage test	V rms	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	110	130	130	140	140

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

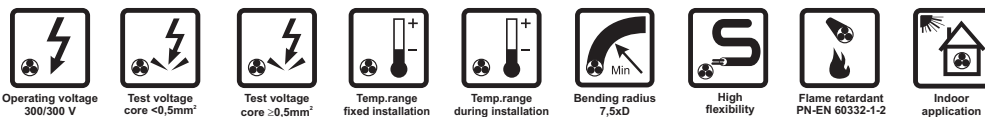
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0164 038	2 x 0,5	4.0	9.6	25
0164 049	3 x 0,5	4.2	14.4	31
0164 039	4 x 0,5	4.6	19.2	37
0164 041	5 x 0,5	5.3	24.0	49
0164 050	6 x 0,5	5.8	28.8	58
0164 034	7 x 0,5	5.8	33.6	61
0164 051	8 x 0,5	6.2	38.4	70
0164 040	10 x 0,5	7.3	48.0	85
0164 042	12 x 0,5	7.5	57.6	97
0164 052	14 x 0,5	7.9	67.2	110
0164 053	16 x 0,5	8.4	76.8	125
0164 054	18 x 0,5	8.9	86.4	140
0164 001	20 x 0,5	9.7	96.0	164
0164 055	21 x 0,5	9.7	100.8	166
0164 056	27 x 0,5	11.0	129.6	206
0164 057	30 x 0,5	11.4	144.0	225
0164 025	36 x 0,5	12.6	172.8	273
0164 058	40 x 0,5	13.0	192.0	298
0164 059	44 x 0,5	14.3	211.2	332
0164 060	48 x 0,5	14.5	230.4	356
0164 002	2 x 0,75	4.4	14.4	32
0164 003	3 x 0,75	4.6	21.6	39
0164 043	4 x 0,75	5.3	28.8	51
0164 030	5 x 0,75	5.8	36.0	63
0164 061	6 x 0,75	6.3	43.2	74
0164 004	7 x 0,75	6.3	50.4	78
0164 062	8 x 0,75	6.8	57.6	90
0164 063	10 x 0,75	8.0	72.0	111
0164 005	12 x 0,75	8.3	86.4	127
0164 064	16 x 0,75	9.6	115.2	172
0164 006	20 x 0,75	10.7	144.0	213
0164 065	24 x 0,75	12.1	172.8	251
0164 066	27 x 0,75	12.3	194.4	275
0164 007	30 x 0,75	12.8	216.0	302
0164 067	36 x 0,75	14.0	259.2	365
0164 068	40 x 0,75	14.5	288.0	398

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0164 008	2 x 1,0	4.7	19.2	39
0164 009	3 x 1,0	5.2	28.8	51
0164 010	4 x 1,0	5.7	38.4	62
0164 011	5 x 1,0	6.3	48	77
0164 013	6 x 1,0	6.8	57.6	92
0164 014	7 x 1,0	6.8	67.2	97
0164 015	10 x 1,0	8.7	96.0	139
0164 016	12 x 1,0	9.0	115.2	159
0164 017	16 x 1,0	10.5	153.6	216
0164 018	20 x 1,0	11.8	192.0	273
0164 019	25 x 1,0	13.5	240.0	338
0164 026	2 x 1,5	5.7	28.8	56
0164 027	3 x 1,5	6.0	43.2	70
0164 069	4 x 1,5	6.6	57.6	87
0164 020	5 x 1,5	7.3	72.0	108
0164 070	6 x 1,5	7.9	86.4	128
0164 021	7 x 1,5	7.9	100.8	137
0164 071	9 x 1,5	10.6	129.6	196
0164 022	12 x 1,5	11.0	172.8	236
0164 023	16 x 1,5	12.4	230.4	310
0164 072	20 x 1,5	14.0	288.0	392
0164 033	2 x 2,5	6.5	48.0	79
0164 073	3 x 2,5	6.9	72.0	101
0164 074	4 x 2,5	7.6	96.0	126
0164 075	5 x 2,5	8.4	120.0	158
0164 076	6 x 2,5	9.6	144.0	198
0164 077	7 x 2,5	9.6	168.0	212
0164 078	10 x 2,5	12.5	240.0	307
0164 079	12 x 2,5	13.0	288.0	355
0164 080	16 x 2,5	14.6	384.0	467
0164 081	19 x 2,5	15.5	456.0	539

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LiYY-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOTRONIK LiYY-P** are multipair control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOTRONIK LiYY-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LiY11Y-P** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LiHH-P** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LiYY-P** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5
Operating voltage peak value	V	350	350	350	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	288.0	158.0	114.0	78.0	52.0	39.0	26.6
Mutual capacitance at 1 kHz, approximate	nF/km	90	90	100	100	120	120	130

Operating voltage U <sub>0</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
Capacitance unbalance, maximum	300 pF/100 m	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

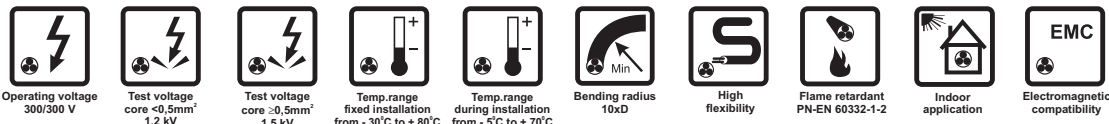
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0168 001	2 x 2 x 0,14	4.5	5.4	22
0168 002	3 x 2 x 0,14	4.8	8.1	24
0168 003	4 x 2 x 0,14	5.4	10.8	32
0168 004	5 x 2 x 0,14	5.9	13.4	38
0168 005	6 x 2 x 0,14	6.5	16.1	44
0168 006	7 x 2 x 0,14	6.5	18.8	48
0168 007	8 x 2 x 0,14	6.9	21.5	54
0168 008	10 x 2 x 0,14	7.8	26.9	65
0168 009	12 x 2 x 0,14	8.2	32.3	74
0168 048	16 x 2 x 0,14	9.6	43.0	103
0168 049	25 x 2 x 0,14	11.8	67.2	154
0168 012	30 x 2 x 0,14	12.8	80.6	179
0168 013	2 x 2 x 0,25	5.2	9.6	31
0168 014	3 x 2 x 0,25	5.5	14.4	36
0168 015	4 x 2 x 0,25	6.1	19.2	44
0168 016	5 x 2 x 0,25	6.7	24.0	53
0168 017	6 x 2 x 0,25	7.3	28.8	61
0168 050	7 x 2 x 0,25	7.3	33.6	67
0168 051	8 x 2 x 0,25	7.7	38.4	75
0168 044	10 x 2 x 0,25	8.8	48.0	92
0168 052	16 x 2 x 0,25	10.9	76.8	146
0168 053	2 x 2 x 0,34	5.6	13.1	37
0168 035	3 x 2 x 0,34	5.9	19.6	44
0168 045	4 x 2 x 0,34	6.5	26.1	55
0168 046	5 x 2 x 0,34	7.2	32.6	66
0168 054	6 x 2 x 0,34	7.8	39.2	76
0168 055	7 x 2 x 0,34	7.8	45.7	85
0168 056	8 x 2 x 0,34	8.3	52.2	96
0168 057	10 x 2 x 0,34	9.9	65.3	127
0168 058	12 x 2 x 0,34	10.4	78.3	146
0168 020	2 x 2 x 0,5	6.5	19.2	48
0168 021	3 x 2 x 0,5	6.9	28.8	57
0168 022	4 x 2 x 0,5	7.6	38.4	71
0168 059	5 x 2 x 0,5	8.3	48.0	85
0168 037	6 x 2 x 0,5	9.1	57.6	99

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0168 060	7 x 2 x 0,5	9.1	67.2	111
0168 023	8 x 2 x 0,5	10.1	76.8	135
0168 024	10 x 2 x 0,5	11.5	96.0	164
0168 047	12 x 2 x 0,5	12.3	115.2	197
0168 061	18 x 2 x 0,5	14.8	172.8	286
0168 025	2 x 2 x 0,75	7.1	28.8	63
0168 062	3 x 2 x 0,75	7.5	43.2	72
0168 026	4 x 2 x 0,75	8.3	57.6	90
0168 027	5 x 2 x 0,75	9.6	72.0	119
0168 063	6 x 2 x 0,75	10.4	86.4	139
0168 064	7 x 2 x 0,75	10.4	100.8	155
0168 028	8 x 2 x 0,75	11.1	115.2	174
0168 030	10 x 2 x 0,75	12.9	144.0	220
0168 032	16 x 2 x 0,75	15.5	230.4	336
0168 033	2 x 2 x 1,0	7.7	38.4	75
0168 036	3 x 2 x 1,0	8.2	57.6	89
0168 065	4 x 2 x 1,0	9.0	76.8	112
0168 066	5 x 2 x 1,0	10.4	96.0	147
0168 067	6 x 2 x 1,0	11.3	115.2	172
0168 068	7 x 2 x 1,0	11.3	134.4	193
0168 069	8 x 2 x 1,0	12.3	153.6	224
0168 070	10 x 2 x 1,0	14.2	192.0	282
0168 071	12 x 2 x 1,0	14.9	230.4	327
0168 072	16 x 2 x 1,0	16.9	307.2	423
0168 038	2 x 2 x 1,5	9.0	57.6	98
0168 073	3 x 2 x 1,5	9.9	86.4	133
0168 074	4 x 2 x 1,5	10.9	115.2	168
0168 075	5 x 2 x 1,5	12.3	144.0	210
0168 076	6 x 2 x 1,5	13.4	172.8	246
0168 077	7 x 2 x 1,5	13.4	201.6	278
0168 078	8 x 2 x 1,5	14.5	230.4	320
0168 079	12 x 2 x 1,5	17.4	345.6	460

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LIYCY

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LIYCY** are overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYCEY** - cables with flexible drain wire stranded of tin-plated annealed copper wires, laid under a shield.

**TECHNOTRONIK LIYCY-O** and **TECHNOTRONIK LIYCEY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYC11Y** and **TECHNOTRONIK LIYCE11Y** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LIHCH** and **TECHNOTRONIK LIHCEH** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LIYCY** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYCY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	350	350	500	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	144.0	79.0	57.0	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	90	100	110	110	120	130	140	140

Operating voltage U <sub>0</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 2014/35/EU

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0112 004	2 x 0,14	3.5	7.5	17
0112 006	3 x 0,14	3.6	9.4	20
0112 007	4 x 0,14	3.9	11.8	24
0112 010	5 x 0,14	4.2	13.2	27
0112 012	6 x 0,14	4.5	16.1	32
0112 013	7 x 0,14	4.5	17.5	33
0112 014	8 x 0,14	4.8	18.8	36
0112 016	10 x 0,14	5.7	23.1	46
0112 017	12 x 0,14	5.9	25.8	51
0112 018	14 x 0,14	6.1	28.5	55
0112 020	16 x 0,14	6.4	31.7	62
0112 021	18 x 0,14	6.8	35.2	69
0112 023	20 x 0,14	7.1	38.5	75
0112 211	21 x 0,14	7.1	39.8	75
0112 028	27 x 0,14	8.0	53.4	95
0112 030	30 x 0,14	8.3	58.3	103
0112 032	36 x 0,14	8.9	67.9	120
0112 033	40 x 0,14	9.6	74.0	138
0112 212	44 x 0,14	10.3	81.2	151
0112 213	48 x 0,14	10.5	87.1	160
0112 214	52 x 0,14	10.8	93.2	170
0112 215	56 x 0,14	11.1	99.6	181
0112 216	61 x 0,14	11.4	106.9	192
0112 036	2 x 0,25	3.8	10.2	21
0112 037	3 x 0,25	4.0	13.6	26
0112 038	4 x 0,25	4.3	16.0	30
0112 039	5 x 0,25	4.6	20.1	36
0112 040	6 x 0,25	5.2	22.5	44
0112 041	7 x 0,25	5.2	24.9	45
0112 042	8 x 0,25	5.5	27.6	50
0112 043	10 x 0,25	6.4	34.2	60
0112 044	12 x 0,25	6.5	39.2	67
0112 155	14 x 0,25	6.9	44.8	76
0112 045	16 x 0,25	7.2	50.2	85
0112 046	18 x 0,25	7.7	59.6	98
0112 047	20 x 0,25	8.0	65.1	108
0112 217	21 x 0,25	8.0	67.5	108

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0112 218	24 x 0,25	8.8	76.8	122
0112 219	27 x 0,25	9.0	84.6	133
0112 220	30 x 0,25	9.7	92.5	153
0112 049	36 x 0,25	10.4	108.7	179
0112 173	40 x 0,25	10.8	119.4	193
0112 221	44 x 0,25	11.8	131.0	217
0112 222	48 x 0,25	12.0	141.1	231
0112 223	52 x 0,25	12.3	151.9	246
0112 224	56 x 0,25	12.7	162.1	263
0112 225	61 x 0,25	13.0	174.9	280
0112 132	2 x 0,34	4.0	12.9	25
0112 133	3 x 0,34	4.2	16.2	30
0112 134	4 x 0,34	4.5	21.1	36
0112 135	5 x 0,34	4.9	24.4	43
0112 136	6 x 0,34	5.5	28.0	52
0112 137	7 x 0,34	5.5	31.2	54
0112 138	8 x 0,34	5.9	35.8	61
0112 139	10 x 0,34	6.8	43.6	74
0112 140	12 x 0,34	7.0	50.5	84
0112 152	14 x 0,34	7.3	57.7	94
0112 163	16 x 0,34	7.8	68.9	110
0112 141	18 x 0,34	8.2	76.4	122
0112 130	20 x 0,34	8.6	84.2	135
0112 181	21 x 0,34	8.6	87.5	136
0112 226	27 x 0,34	10.1	109.8	178
0112 227	30 x 0,34	10.4	120.2	193
0112 228	36 x 0,34	11.2	141.9	226
0112 142	40 x 0,34	11.8	156.0	250
0112 229	44 x 0,34	12.7	171.4	274
0112 230	48 x 0,34	12.9	184.9	293
0112 231	52 x 0,34	13.2	198.8	312
0112 232	56 x 0,34	13.6	212.9	334
0112 143	61 x 0,34	14.2	230.2	364
0112 051	1 x 0,5	3.0	8.8	17
0112 052	2 x 0,5	4.5	17.7	30
0112 053	3 x 0,5	4.7	22.4	37

## TECHNOTRONIK LIYCY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0112 054	4 x 0,5	5.3	27.3	46
0112 055	5 x 0,5	5.8	33.7	57
0112 056	6 x 0,5	6.3	38.8	66
0112 057	7 x 0,5	6.3	43.6	69
0112 058	8 x 0,5	6.7	49.2	79
0112 059	10 x 0,5	7.9	64.9	98
0112 060	12 x 0,5	8.1	75.0	111
0112 061	14 x 0,5	8.5	86.2	126
0112 062	16 x 0,5	9.0	96.6	141
0112 063	18 x 0,5	9.9	108.1	168
0112 064	20 x 0,5	10.3	118.1	184
0112 065	21 x 0,5	10.3	122.9	187
0112 067	27 x 0,5	11.8	155.0	235
0112 068	30 x 0,5	12.2	170.5	255
0112 069	36 x 0,5	13.2	201.8	301
0112 070	40 x 0,5	13.6	222.1	326
0112 233	42 x 0,5	14.3	233.0	355
0112 234	44 x 0,5	15.0	250.8	369
0112 235	48 x 0,5	15.2	270.7	394
0112 236	52 x 0,5	15.6	291.1	421
0112 237	56 x 0,5	16.1	312.2	451
0112 238	61 x 0,5	16.6	337.4	482
0112 074	2 x 0,75	4.9	22.4	36
0112 075	3 x 0,75	5.3	29.7	47
0112 077	4 x 0,75	5.8	38.5	58
0112 080	5 x 0,75	6.3	46.0	70
0112 081	6 x 0,75	6.8	54.2	83
0112 083	7 x 0,75	6.8	61.4	87
0112 084	8 x 0,75	7.3	69.6	100
0112 085	10 x 0,75	8.6	91.0	124
0112 086	12 x 0,75	8.9	105.9	142
0112 088	16 x 0,75	10.2	137.0	191
0112 090	20 x 0,75	11.3	168.6	235
0112 091	24 x 0,75	12.7	200.5	275
0112 239	27 x 0,75	12.9	222.7	301
0112 072	30 x 0,75	13.4	245.6	328
0112 093	34 x 0,75	14.6	276.9	387
0112 240	36 x 0,75	14.6	291.3	395
0112 241	40 x 0,75	15.2	328.3	437
0112 094	2 x 1,0	5.4	27.4	44
0112 096	3 x 1,0	5.7	38.5	57

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0112 097	4 x 1,0	6.2	48.2	69
0112 176	5 x 1,0	6.8	59.0	86
0112 099	6 x 1,0	7.3	69.6	101
0112 100	7 x 1,0	7.3	79.2	107
0112 102	10 x 1,0	9.7	116.5	162
0112 103	12 x 1,0	10.0	136.9	185
0112 105	16 x 1,0	11.1	178.0	237
0112 107	20 x 1,0	12.4	219.1	297
0112 109	25 x 1,0	14.3	271.4	371
0112 110	27 x 1,0	14.3	290.6	382
0112 146	30 x 1,0	14.9	327.4	424
0112 242	36 x 1,0	16.0	388.4	501
0112 112	2 x 1,5	6.2	38.6	58
0112 113	3 x 1,5	6.5	53.6	75
0112 114	4 x 1,5	7.1	69.2	94
0112 115	5 x 1,5	7.9	88.9	119
0112 116	6 x 1,5	8.5	105.4	142
0112 117	7 x 1,5	8.5	119.8	151
0112 118	9 x 1,5	11.2	154.0	212
0112 120	12 x 1,5	11.8	198.2	260
0112 121	16 x 1,5	13.0	258.9	333
0112 122	20 x 1,5	14.6	320.1	420
0112 243	21 x 1,5	14.6	334.5	429
0112 244	24 x 1,5	16.3	389.3	490
0112 150	25 x 1,5	16.6	404.6	521
0112 123	37 x 1,5	18.8	583.6	717
0112 124	2 x 2,5	7.0	59.4	79
0112 125	3 x 2,5	7.4	84.2	105
0112 126	4 x 2,5	8.2	113.7	136
0112 145	5 x 2,5	9.0	139.8	170
0112 245	6 x 2,5	10.2	165.8	213
0112 127	7 x 2,5	10.2	189.8	227
0112 246	10 x 2,5	13.1	268.8	323
0112 247	12 x 2,5	13.6	318.1	375
0112 248	16 x 2,5	15.3	424.6	499
0112 249	19 x 2,5	16.2	499.4	573
0112 250	24 x 2,5	19.1	627.7	724
0112 251	27 x 2,5	19.5	701.0	799
0112 252	30 x 2,5	20.2	775.1	877

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LIYCY-Nr

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOTRONIK LIYCY-Nr** are overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYCEY-Nr** - cables with flexible drain wire stranded of tin-plated annealed copper wires, laid under a shield.

**TECHNOTRONIK LIYCY-Nr-O** and **TECHNOTRONIK LIYCEY-Nr-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYC11Y-Nr** and **TECHNOTRONIK LIYCE11Y-Nr** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LIHCH-Nr** and **TECHNOTRONIK LIHCEH-Nr** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LIYCY-Nr** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYCY-Nr

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	500	500	500	500	500
Voltage test	V rms	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	110	120	130	140	140

Operating voltage Uo/U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0123 032	2 x 0,5	4.5	17.7	30
0123 001	3 x 0,5	4.7	22.4	37
0123 002	4 x 0,5	5.3	27.3	46
0123 033	5 x 0,5	5.8	33.7	57
0123 045	6 x 0,5	6.3	38.8	66
0123 034	7 x 0,5	6.3	43.6	69
0123 003	8 x 0,5	6.7	49.2	79
0123 035	10 x 0,5	7.9	64.9	98
0123 036	12 x 0,5	8.1	75.0	111
0123 037	14 x 0,5	8.5	86.2	126
0123 004	16 x 0,5	9.0	96.6	141
0123 005	18 x 0,5	9.9	108.1	168
0123 006	20 x 0,5	10.3	118.1	184
0123 007	21 x 0,5	10.3	122.9	187
0123 046	27 x 0,5	11.8	155.0	235
0123 043	30 x 0,5	12.2	170.5	255
0123 008	36 x 0,5	13.2	201.8	301
0123 009	40 x 0,5	13.6	222.1	326
0123 026	61 x 0,5	16.6	337.4	482
0123 025	2 x 0,75	4.9	22.4	36
0123 028	3 x 0,75	5.3	29.7	47
0123 029	4 x 0,75	5.8	38.5	58
0123 047	5 x 0,75	6.3	46.0	70
0123 048	6 x 0,75	6.8	54.2	83
0123 049	7 x 0,75	6.8	61.4	87
0123 050	8 x 0,75	7.3	69.6	100
0123 051	10 x 0,75	8.6	91.0	124
0123 052	12 x 0,75	8.9	105.9	142
0123 053	16 x 0,75	10.2	137.0	191
0123 054	20 x 0,75	11.3	168.6	235
0123 055	24 x 0,75	12.7	200.5	275
0123 056	27 x 0,75	12.9	222.7	301
0123 057	30 x 0,75	13.4	245.6	328
0123 058	44 x 0,75	16.4	360.7	476
0123 010	2 x 1,0	5.4	27.4	44
0123 011	3 x 1,0	5.7	38.5	57

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0123 012	4 x 1,0	6.2	48.2	69
0123 040	5 x 1,0	6.8	59.0	86
0123 013	6 x 1,0	7.3	69.6	101
0123 039	7 x 1,0	7.3	79.2	107
0123 014	10 x 1,0	9.7	116.5	162
0123 042	12 x 1,0	10.0	136.9	185
0123 015	16 x 1,0	11.1	178.0	237
0123 059	20 x 1,0	12.4	219.1	297
0123 017	25 x 1,0	14.3	271.4	371
0123 060	44 x 1,0	17.9	471.0	595
0123 021	2 x 1,5	6.2	38.6	58
0123 031	3 x 1,5	6.5	53.6	75
0123 061	4 x 1,5	7.1	69.2	94
0123 062	5 x 1,5	7.9	88.9	119
0123 063	6 x 1,5	8.5	105.4	142
0123 022	7 x 1,5	8.5	119.8	151
0123 064	9 x 1,5	11.2	154.0	212
0123 038	12 x 1,5	11.8	198.2	260
0123 065	16 x 1,5	13.0	258.9	333
0123 066	20 x 1,5	14.6	320.1	420
0123 067	37 x 1,5	18.8	583.6	717
0123 068	2 x 2,5	7.0	59.4	79
0123 069	3 x 2,5	7.4	84.2	105
0123 070	4 x 2,5	8.2	113.7	136
0123 071	5 x 2,5	9.0	139.8	170
0123 027	6 x 2,5	10.2	165.8	213
0123 072	7 x 2,5	10.2	189.8	227
0123 073	10 x 2,5	13.1	268.8	323
0123 074	12 x 2,5	13.6	318.1	375
0123 075	16 x 2,5	15.3	424.6	499
0123 076	19 x 2,5	16.2	499.4	573
0123 077	24 x 2,5	19.1	627.7	724
0123 078	27 x 2,5	19.5	701.0	799
0123 079	30 x 2,5	20.2	775.1	877

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOTRONIK LIYCY-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



Operating voltage  
300/300 V



Test voltage  
core <0,5mm<sup>2</sup>  
1,2 kV



Test voltage  
core >0,5mm<sup>2</sup>  
1,5 kV



Temp.range  
fixed installation  
from - 30°C to + 80°C



Temp.range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Electromagnetic  
compatibility

### APPLICATIONS

**TECHNOTRONIK LIYCY-P** are multipair overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYCEY-P** - cables with flexible drain wire stranded of tin-plated annealed copper wires, laid under a shield.

**TECHNOTRONIK LIYCY-P-O** and **TECHNOTRONIK LIYCEY-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYC11Y-P** and **TECHNOTRONIK LIYCE11Y-P** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK IB-LIYCY-P** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYCY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5
Operating voltage peak value	V	350	350	350	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	288.0	158.0	114.0	78.0	52.0	39.0	26.6
Mutual capacitance at 1 kHz, approximate	nF/km	90	100	100	110	120	130	140

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
Capacitance unbalance, maximum	300 pF/100 m	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

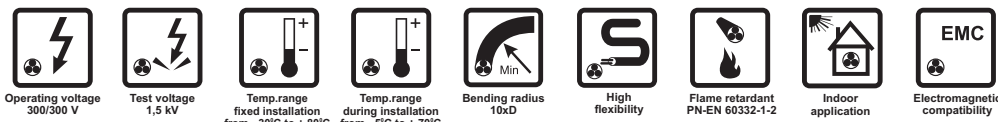
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0130 003	2 x 2 x 0,14	4.9	13.4	31
0130 004	3 x 2 x 0,14	5.4	16.2	36
0130 007	4 x 2 x 0,14	5.8	20.4	42
0130 008	5 x 2 x 0,14	6.3	23.4	48
0130 009	6 x 2 x 0,14	6.9	27.3	56
0130 012	8 x 2 x 0,14	7.3	33.5	66
0130 014	12 x 2 x 0,14	8.7	51.2	93
0130 016	16 x 2 x 0,14	10.1	64.7	125
0130 105	25 x 2 x 0,14	12.3	94.3	181
0130 019	2 x 2 x 0,25	5.6	19.3	41
0130 021	3 x 2 x 0,25	5.9	24.1	46
0130 022	4 x 2 x 0,25	6.5	29.6	55
0130 023	5 x 2 x 0,25	7.1	35.6	65
0130 024	6 x 2 x 0,25	7.8	45.4	78
0130 025	8 x 2 x 0,25	8.2	56.1	93
0130 027	12 x 2 x 0,25	10.1	79.3	137
0130 106	16 x 2 x 0,25	11.4	101.7	172
0130 020	25 x 2 x 0,25	14.1	150.9	259
0130 065	2 x 2 x 0,34	6.0	22.7	47
0130 066	3 x 2 x 0,34	6.3	29.6	54
0130 067	4 x 2 x 0,34	6.9	37.3	67
0130 068	5 x 2 x 0,34	7.7	49.0	83
0130 102	6 x 2 x 0,34	8.3	57.1	95
0130 107	8 x 2 x 0,34	8.8	71.4	115
0130 108	12 x 2 x 0,34	10.9	101.9	170
0130 070	16 x 2 x 0,34	12.4	131.5	220
0130 029	2 x 2 x 0,5	6.9	30.4	59
0130 030	3 x 2 x 0,5	7.3	40.8	69
0130 031	4 x 2 x 0,5	8.1	55.8	88
0130 032	5 x 2 x 0,5	8.8	67.2	104
0130 033	6 x 2 x 0,5	10.0	79.3	131

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0130 035	8 x 2 x 0,5	10.6	99.7	158
0130 038	12 x 2 x 0,5	12.8	143.2	225
0130 098	14 x 2 x 0,5	13.6	164.5	254
0130 039	16 x 2 x 0,5	14.6	185.7	291
0130 044	2 x 2 x 0,75	7.5	41.2	76
0130 045	3 x 2 x 0,75	8.0	60.3	89
0130 046	4 x 2 x 0,75	8.8	76.8	110
0130 047	5 x 2 x 0,75	10.1	93.7	141
0130 048	6 x 2 x 0,75	10.9	110.0	163
0130 049	7 x 2 x 0,75	10.9	124.4	179
0130 050	8 x 2 x 0,75	11.8	140.6	206
0130 052	12 x 2 x 0,75	14.2	203.9	293
0130 077	16 x 2 x 0,75	16.1	273.8	379
0130 053	2 x 2 x 1,0	8.2	56.1	93
0130 054	3 x 2 x 1,0	8.7	76.6	108
0130 055	4 x 2 x 1,0	9.9	98.5	144
0130 056	5 x 2 x 1,0	10.9	119.6	171
0130 057	6 x 2 x 1,0	12.0	141.1	205
0130 058	7 x 2 x 1,0	12.0	160.3	226
0130 074	8 x 2 x 1,0	12.8	181.6	253
0130 095	12 x 2 x 1,0	15.5	271.6	369
0130 061	2 x 2 x 1,5	9.9	79.3	130
0130 062	3 x 2 x 1,5	10.4	108.7	156
0130 092	4 x 2 x 1,5	11.4	140.1	193
0130 063	5 x 2 x 1,5	12.8	172.0	239
0130 093	6 x 2 x 1,5	14.1	203.7	285
0130 103	7 x 2 x 1,5	14.1	232.5	316
0130 109	8 x 2 x 1,5	15.1	270.4	361
0130 104	12 x 2 x 1,5	18.2	394.5	517

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LIYYCY

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LIYYCY** are overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

Cable inner sheath offers enhanced protection against mechanical damage.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYYCY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYYC11Y** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LIHHCH** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LIYYCY** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYYCY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5
Operating voltage, peak value	V	500	500	500	500
Voltage test	V rms	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3
Capacitance between conductors at 1 kHz, appr.	nF/km	110	120	130	130

Operating voltage Uo/U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0171 016	1 x 0,5	4.4	11.4	29
0171 009	2 x 0,5	6.1	19.3	49
0171 010	3 x 0,5	6.3	24.4	57
0171 011	4 x 0,5	6.7	30.0	66
0171 017	5 x 0,5	7.2	35.8	78
0171 018	6 x 0,5	7.8	45.4	93
0171 019	7 x 0,5	7.8	50.2	96
0171 020	8 x 0,5	8.2	56.1	107
0171 021	10 x 0,5	9.7	68.5	135
0171 022	12 x 0,5	9.9	79.3	149
0171 023	16 x 0,5	10.8	100.2	182
0171 024	24 x 0,5	13.0	143.7	252
0171 025	25 x 0,5	13.2	149.0	267
0171 026	27 x 0,5	13.2	158.6	272
0171 027	37 x 0,5	14.9	217.0	358
0171 028	40 x 0,5	15.3	232.6	382
0171 029	48 x 0,5	16.6	275.0	441
0171 030	1 x 0,75	4.5	15.3	33
0171 006	2 x 0,75	6.5	24.8	57
0171 007	3 x 0,75	6.7	32.4	66
0171 012	4 x 0,75	7.2	40.6	79
0171 031	5 x 0,75	7.8	52.6	97
0171 032	6 x 0,75	8.3	61.1	111
0171 033	7 x 0,75	8.3	68.3	115
0171 034	8 x 0,75	8.8	76.8	130
0171 035	10 x 0,75	10.4	94.3	163
0171 004	12 x 0,75	10.7	109.5	182
0171 036	16 x 0,75	11.8	140.6	230
0171 037	24 x 0,75	14.3	204.2	321
0171 038	25 x 0,75	14.5	211.9	339
0171 039	27 x 0,75	14.5	226.3	347

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0171 040	36 x 0,75	16.1	302.6	447
0171 041	37 x 0,75	16.1	309.8	451
0171 042	1 x 1,0	4.7	17.6	37
0171 043	2 x 1,0	6.8	30.2	64
0171 044	3 x 1,0	7.1	40.4	77
0171 001	4 x 1,0	7.7	54.8	95
0171 045	5 x 1,0	8.3	65.9	113
0171 046	6 x 1,0	8.8	76.8	131
0171 047	7 x 1,0	8.8	86.4	136
0171 048	8 x 1,0	9.8	97.5	164
0171 049	10 x 1,0	11.1	120.4	194
0171 050	12 x 1,0	11.4	140.1	217
0171 051	16 x 1,0	12.7	181.3	278
0171 052	24 x 1,0	15.5	271.6	398
0171 053	25 x 1,0	15.8	282.1	422
0171 054	27 x 1,0	15.8	301.3	432
0171 055	1 x 1,5	5.3	22.5	46
0171 056	2 x 1,5	7.7	45.2	84
0171 003	3 x 1,5	8.0	60.3	102
0171 013	4 x 1,5	8.6	76.6	122
0171 057	5 x 1,5	9.7	92.5	155
0171 058	6 x 1,5	10.3	108.5	180
0171 014	7 x 1,5	10.3	122.9	188
0171 008	8 x 1,5	11.0	139.6	216
0171 015	10 x 1,5	12.8	172.0	262
0171 059	12 x 1,5	13.2	201.8	296
0171 060	16 x 1,5	14.6	262.5	379
0171 061	24 x 1,5	17.7	393.6	538
0171 062	25 x 1,5	21.7	470.4	827,0

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LIYYCY-Nr

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOTRONIK LIYYCY-Nr** are overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

Cable inner sheath offers enhanced protection against mechanical damage.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- inner PVC sheath,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYYCY-Nr-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYYC11Y-Nr** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LIHHCH-Nr** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LIYYCY-Nr** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYYCY-Nr

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>
Operating voltage, peak value	V	500	500	500	500
Voltage test	V rms	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3
Capacitance between conductors at 1 kHz, appr.	nF/km	110	120	130	130

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0172 011	1 x 0,5	4.4	11.4	29
0172 012	2 x 0,5	6.1	19.3	49
0172 013	3 x 0,5	6.3	24.4	57
0172 014	4 x 0,5	6.7	30.0	66
0172 015	5 x 0,5	7.2	35.8	78
0172 016	6 x 0,5	7.8	45.4	93
0172 017	7 x 0,5	7.8	50.2	96
0172 018	8 x 0,5	8.2	56.1	107
0172 019	10 x 0,5	9.7	68.5	135
0172 020	12 x 0,5	9.9	79.3	149
0172 021	16 x 0,5	10.8	100.2	182
0172 022	24 x 0,5	13.0	143.7	252
0172 023	25 x 0,5	13.2	149.0	267
0172 024	27 x 0,5	13.2	158.6	272
0172 025	37 x 0,5	14.9	217.0	358
0172 026	40 x 0,5	15.3	232.6	382
0172 027	48 x 0,5	16.6	275.0	441
0172 028	1 x 0,75	4.5	15.3	33
0172 029	2 x 0,75	6.5	24.8	57
0172 030	3 x 0,75	6.7	32.4	66
0172 031	4 x 0,75	7.2	40.6	79
0172 032	5 x 0,75	7.8	52.6	97
0172 033	6 x 0,75	8.3	61.1	111
0172 034	7 x 0,75	8.3	68.3	115
0172 035	8 x 0,75	8.8	76.8	130
0172 036	10 x 0,75	10.4	94.3	163
0172 037	12 x 0,75	10.7	109.5	182
0172 038	16 x 0,75	11.8	140.6	230
0172 039	24 x 0,75	14.3	204.2	321
0172 040	25 x 0,75	14.5	211.9	339
0172 041	27 x 0,75	14.5	226.3	347

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0172 042	36 x 0,75	16.1	302.6	447
0172 043	37 x 0,75	16.1	309.8	451
0172 044	1 x 1,0	4.7	17.6	37
0172 045	2 x 1,0	6.8	30.2	64
0172 001	3 x 1,0	7.1	40.4	77
0172 004	4 x 1,0	7.7	54.8	95
0172 005	5 x 1,0	8.3	65.9	113
0172 006	6 x 1,0	8.8	76.8	131
0172 046	7 x 1,0	8.8	86.4	136
0172 047	8 x 1,0	9.8	97.5	164
0172 007	10 x 1,0	11.1	120.4	194
0172 008	12 x 1,0	11.4	140.1	217
0172 048	16 x 1,0	12.7	181.3	278
0172 002	24 x 1,0	15.5	271.6	398
0172 009	25 x 1,0	15.8	282.1	422
0172 049	27 x 1,0	15.8	301.3	432
0172 050	1 x 1,5	5.3	22.5	46
0172 051	2 x 1,5	7.7	45.2	84
0172 052	3 x 1,5	8.0	60.3	102
0172 053	4 x 1,5	8.6	76.6	122
0172 054	5 x 1,5	9.7	92.5	155
0172 055	6 x 1,5	10.3	108.5	180
0172 056	7 x 1,5	10.3	122.9	188
0172 057	8 x 1,5	11.0	139.6	216
0172 058	10 x 1,5	12.8	172.0	262
0172 059	12 x 1,5	13.2	201.8	296
0172 060	16 x 1,5	14.6	262.5	379
0172 061	24 x 1,5	17.7	393.6	538
0172 062	25 x 1,5	21.7	470.4	827,0

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LiY(St)CY

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



Operating voltage  
300/300 V



Test voltage  
1,5 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



EMC  
Electromagnetic  
compatibility

## APPLICATIONS

**TECHNOTRONIK LiY(St)CY** are overall double shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- collective shield incorporating aluminium-polyester tape under tinned copper wire braid of coverage bigger than 60%,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LiY(St)CY-Nr** – cable with black conductor insulation and white conductor numbers printed on it for identification.

**TECHNOTRONIK LiY(St)CY-O** – cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LiY(St)C11Y** – polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK LiH(St)CH** – halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOTRONIK IB-LiY(St)CY** – specially designed intrinsically safe cable.

## TECHNOTRONIK LIY(St)CY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	500	500	500	500	500
Voltage test	V rms	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	110	120	130	140	140

Operating voltage Uo/U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0083 009	2 x 0,5	4.6	16.0	30
0083 003	3 x 0,5	4.8	20.8	36
0083 010	4 x 0,5	5.4	25.9	46
0083 004	5 x 0,5	5.9	32.0	56
0083 011	6 x 0,5	6.4	37.1	66
0083 012	7 x 0,5	6.4	41.9	68
0083 013	8 x 0,5	6.8	48.1	80
0083 014	10 x 0,5	7.9	58.7	94
0083 015	12 x 0,5	8.1	68.6	107
0083 016	16 x 0,5	9.0	89.3	136
0083 017	19 x 0,5	10.0	108.5	169
0083 018	21 x 0,5	10.4	119.8	186
0083 019	27 x 0,5	11.9	150.5	233
0083 020	36 x 0,5	13.3	197.2	299
0083 021	48 x 0,5	15.2	257.8	385
0083 022	2 x 0,75	5.2	20.8	38
0083 023	3 x 0,75	5.4	28.3	47
0083 024	4 x 0,75	5.9	36.8	58
0083 025	5 x 0,75	6.4	44.3	69
0083 026	6 x 0,75	6.9	52.9	84
0083 027	7 x 0,75	6.9	60.1	88
0083 028	8 x 0,75	7.4	67.5	100
0083 029	10 x 0,75	8.6	83.8	119
0083 030	12 x 0,75	8.9	98.7	137
0083 031	16 x 0,75	10.3	133.1	190
0083 032	19 x 0,75	10.9	156.0	216
0083 033	24 x 0,75	12.8	195.5	273
0083 034	27 x 0,75	13.0	217.6	299
0083 035	34 x 0,75	14.7	271.1	385
0083 036	36 x 0,75	14.7	285.5	393
0083 037	2 x 1,0	5.5	27.2	45
0083 005	3 x 1,0	5.8	36.8	57

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0083 038	4 x 1,0	6.3	46.5	69
0083 039	5 x 1,0	6.9	57.7	86
0083 006	6 x 1,0	7.4	67.5	101
0083 040	7 x 1,0	7.4	77.1	106
0083 007	10 x 1,0	9.8	112.9	161
0083 041	12 x 1,0	10.1	132.7	183
0083 042	16 x 1,0	11.2	173.4	235
0083 043	21 x 1,0	12.5	223.7	301
0083 044	25 x 1,0	14.4	265.7	369
0083 045	27 x 1,0	14.4	284.9	380
0083 046	36 x 1,0	16.0	374.7	491
0083 047	2 x 1,5	6.3	36.9	57
0083 048	3 x 1,5	6.6	52.9	75
0083 049	4 x 1,5	7.2	67.3	93
0083 050	5 x 1,5	7.9	82.7	115
0083 051	6 x 1,5	8.5	98.1	137
0083 052	7 x 1,5	8.5	112.5	146
0083 053	8 x 1,5	9.7	131.9	183
0083 054	12 x 1,5	11.9	193.7	258
0083 055	16 x 1,5	13.1	253.8	331
0083 056	19 x 1,5	14.0	298.4	385
0083 057	21 x 1,5	14.7	328.7	426
0083 058	24 x 1,5	16.3	375.3	480
0083 059	25 x 1,5	16.6	390.3	510
0083 060	37 x 1,5	18.9	574.3	712
0083 008	2 x 2,5	7.1	57.7	79
0083 061	3 x 2,5	7.5	82.1	105
0083 062	4 x 2,5	8.2	107.2	132
0083 063	5 x 2,5	9.0	132.5	165
0083 064	12 x 2,5	13.7	312.6	372

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOTRONIK LIYC-CY-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



Operating voltage  
300/300 V



Test voltage  
core  $< 0,5\text{mm}^2$   
1,2 kV



Test voltage  
core  $\geq 0,5\text{mm}^2$   
1,5 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Electromagnetic  
compatibility

## APPLICATIONS

**TECHNOTRONIK LIYC-CY-P** are multipair, pair and overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- pairs wrapped in polyester tape,
- pairs shielded by tinned copper wire braid of effective density coverage,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYC-CY-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYC-C11Y-P** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK IB-LIYC-CY-P** - specially designed intrinsically safe cable.

## TECHNOTRONIK LiYC-CY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5
Operating voltage, peak value	V	350	350	350	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	288.0	158.0	114.0	78.0	52.0	39.0	26.6
Mutual capacitance at 1 kHz, approximate	nF/km	200	210	210	220	240	250	250

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
Capacitance unbalance, maximum	300 pF/100 m	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

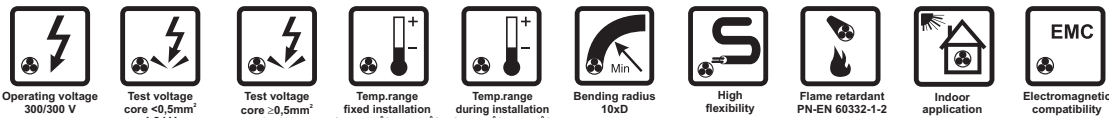
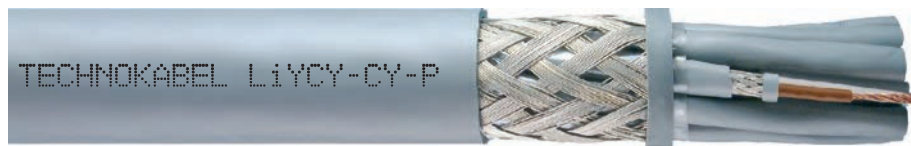
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1220 004	2 x 2 x 0,14	6.4	25.4	50
1220 005	3 x 2 x 0,14	6.7	33.6	57
1220 006	4 x 2 x 0,14	7.3	42.4	69
1220 007	5 x 2 x 0,14	8.1	55.4	86
1220 008	6 x 2 x 0,14	8.8	64.8	99
1220 009	8 x 2 x 0,14	9.8	81.6	130
1220 010	12 x 2 x 0,14	11.8	116.5	183
1220 011	16 x 2 x 0,14	13.2	150.5	229
1220 012	25 x 2 x 0,14	16.3	233.5	345
1220 013	2 x 2 x 0,25	7.1	32.2	65
1220 014	3 x 2 x 0,25	7.5	43.2	70
1220 002	4 x 2 x 0,25	8.4	60.1	91
1220 015	5 x 2 x 0,25	9.6	71.6	116
1220 016	6 x 2 x 0,25	10.4	84.0	133
1220 017	8 x 2 x 0,25	11.0	106.6	161
1220 018	12 x 2 x 0,25	13.3	152.3	229
1220 019	16 x 2 x 0,25	15.3	204.6	302
1220 020	25 x 2 x 0,25	18.6	306.5	443
1220 021	2 x 2 x 0,34	7.5	38.6	73
1220 022	3 x 2 x 0,34	8.0	56.4	86
1220 023	4 x 2 x 0,34	8.8	71.6	106
1220 024	5 x 2 x 0,34	10.1	87.1	136
1220 025	6 x 2 x 0,34	11.0	103.0	158
1220 026	8 x 2 x 0,34	11.8	130.2	198
1220 027	12 x 2 x 0,34	14.2	188.0	281
1220 028	16 x 2 x 0,34	16.1	252.6	363
1220 029	2 x 2 x 0,5	8.6	54.7	92
1220 030	3 x 2 x 0,5	9.1	73.5	107
1220 031	4 x 2 x 0,5	10.4	93.6	142
1220 032	5 x 2 x 0,5	11.4	114.1	169
1220 033	6 x 2 x 0,5	12.6	134.4	201

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1220 034	8 x 2 x 0,5	13.4	172.2	247
1220 035	12 x 2 x 0,5	16.2	257.0	360
1220 036	14 x 2 x 0,5	17.3	296.0	409
1220 037	16 x 2 x 0,5	18.5	334.7	466
1220 038	2 x 2 x 0,75	9.1	65.3	108
1220 039	3 x 2 x 0,75	10.1	89.6	133
1220 040	4 x 2 x 0,75	11.1	114.9	164
1220 041	5 x 2 x 0,75	12.3	140.3	202
1220 042	6 x 2 x 0,75	13.4	165.3	234
1220 043	7 x 2 x 0,75	13.4	188.0	258
1220 044	8 x 2 x 0,75	14.5	212.9	296
1220 045	12 x 2 x 0,75	17.3	318.0	421
1220 046	16 x 2 x 0,75	19.8	415.6	547
1220 003	2 x 2 x 1,0	10.3	77.4	133
1220 047	3 x 2 x 1,0	10.9	106.5	154
1220 001	4 x 2 x 1,0	12.2	137.0	197
1220 048	5 x 2 x 1,0	13.4	167.7	235
1220 049	6 x 2 x 1,0	14.9	205.1	287
1220 050	7 x 2 x 1,0	14.9	232.7	317
1220 051	8 x 2 x 1,0	15.8	263.1	353
1220 052	12 x 2 x 1,0	19.1	382.9	505
1220 053	2 x 2 x 1,5	11.8	103.1	179
1220 054	3 x 2 x 1,5	12.5	143.7	205
1220 055	4 x 2 x 1,5	14.0	185.8	262
1220 056	5 x 2 x 1,5	15.5	235.1	320
1220 057	6 x 2 x 1,5	16.9	278.2	373
1220 058	7 x 2 x 1,5	16.9	317.0	414
1220 059	8 x 2 x 1,5	18.2	359.2	473
1220 060	12 x 2 x 1,5	21.7	524.8	667

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LIYCY-CY-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LIYCY-CY-P** are multipair, pair and overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- pairs wrapped in polyester tape,
- pairs shielded by tinned copper wire braid of effective density coverage,
- shielded pairs sheathed with PVC to insulate one shield from another,
- shielded and sheathed pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LIYCY-CY-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LIYCY-C11Y-P** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

**TECHNOTRONIK IB-LIYCY-CY-P** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIYCY-CY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5
Operating voltage, peak value	V	350	350	350	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	288.0	158.0	114.0	78.0	52.0	39.0	26.6
Mutual capacitance at 1 kHz, approximate	nF/km	200	210	210	220	240	250	250

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	Operating temperature range for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
Capacitance unbalance, maximum	300 pF/100 m	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

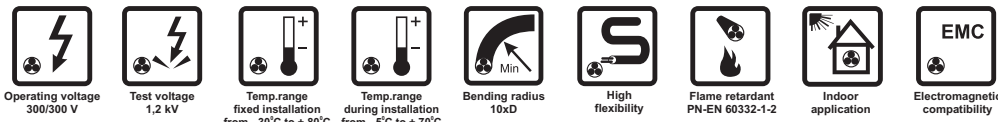
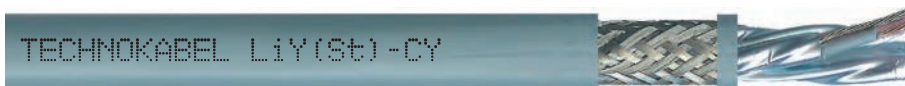
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0119 024	2 x 2 x 0,14	7.8	31.9	75
0119 025	3 x 2 x 0,14	8.2	40.5	83
0119 026	4 x 2 x 0,14	9.0	50.2	102
0119 027	5 x 2 x 0,14	10.3	60.1	131
0119 028	6 x 2 x 0,14	11.2	70.0	151
0119 029	8 x 2 x 0,14	12.2	87.3	191
0119 030	12 x 2 x 0,14	14.6	123.3	270
0119 031	16 x 2 x 0,14	16.6	166.1	348
0119 032	25 x 2 x 0,14	20.3	245.3	512
0119 006	2 x 2 x 0,25	8.6	39.5	91
0119 033	3 x 2 x 0,25	9.1	50.8	99
0119 007	4 x 2 x 0,25	10.4	63.4	133
0119 017	5 x 2 x 0,25	11.4	76.3	157
0119 034	6 x 2 x 0,25	12.6	89.1	187
0119 035	8 x 2 x 0,25	13.4	111.8	228
0119 001	12 x 2 x 0,25	16.2	166.4	331
0119 036	16 x 2 x 0,25	18.5	214.0	428
0119 037	25 x 2 x 0,25	22.9	341.2	654
0119 038	2 x 2 x 0,34	8.9	45.7	100
0119 039	3 x 2 x 0,34	9.9	61.0	123
0119 018	4 x 2 x 0,34	10.8	75.7	150
0119 040	5 x 2 x 0,34	12.1	91.7	185
0119 041	6 x 2 x 0,34	13.2	107.6	214
0119 042	8 x 2 x 0,34	14.2	135.9	269
0119 043	12 x 2 x 0,34	17.0	202.8	382
0119 044	16 x 2 x 0,34	19.4	261.9	495
0119 011	2 x 2 x 0,5	10.3	57.7	132
0119 045	3 x 2 x 0,5	10.9	77.1	146
0119 012	4 x 2 x 0,5	12.2	97.8	187
0119 008	5 x 2 x 0,5	13.4	118.7	222
0119 046	6 x 2 x 0,5	14.9	146.3	272

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0119 002	8 x 2 x 0,5	15.8	184.7	333
0119 019	12 x 2 x 0,5	19.1	265.5	475
0119 047	14 x 2 x 0,5	20.4	305.1	540
0119 048	16 x 2 x 0,5	21.6	344.4	604
0119 049	2 x 2 x 0,75	10.9	68.9	149
0119 005	3 x 2 x 0,75	11.5	93.1	165
0119 050	4 x 2 x 0,75	12.9	118.8	211
0119 051	5 x 2 x 0,75	14.3	144.5	259
0119 020	6 x 2 x 0,75	15.7	177.6	308
0119 052	7 x 2 x 0,75	15.7	200.3	340
0119 053	8 x 2 x 0,75	16.8	226.2	381
0119 016	12 x 2 x 0,75	20.2	326.4	544
0119 054	16 x 2 x 0,75	23.3	448.1	728
0119 003	2 x 2 x 1,0	11.8	80.7	172
0119 021	3 x 2 x 1,0	12.5	110.2	194
0119 015	4 x 2 x 1,0	14.0	141.1	248
0119 055	5 x 2 x 1,0	15.5	179.3	304
0119 056	6 x 2 x 1,0	16.9	211.3	353
0119 057	7 x 2 x 1,0	16.9	238.9	391
0119 014	8 x 2 x 1,0	18.2	270.0	446
0119 022	12 x 2 x 1,0	21.7	391.0	627
0119 004	2 x 2 x 1,5	13.2	106.7	216
0119 058	3 x 2 x 1,5	14.2	147.5	251
0119 023	4 x 2 x 1,5	15.7	197.0	319
0119 059	5 x 2 x 1,5	17.3	240.7	383
0119 060	6 x 2 x 1,5	19.1	284.5	456
0119 061	7 x 2 x 1,5	19.1	323.3	507
0119 062	8 x 2 x 1,5	20.4	366.1	568
0119 010	12 x 2 x 1,5	24.7	556.7	836

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LiY(St)-CY nx2x0,22 mm<sup>2</sup>

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOTRONIK LiY(St)-CY** are multipair, pair and overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (7x0.2 mm),
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- electrostatic shield of pairs incorporating a plastic laminated metal foil,
- shielded pairs laid-up in layers,
- tinned copper wire braid shield of effective density coverage,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOTRONIK LiY(St)-CY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOTRONIK LiY(St)-C11Y** - polyurethane sheathed cables of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

## TECHNOTRONIK LiY(St)-CY nx2x0,22 mm<sup>2</sup>

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Voltage test	1.2 kV rms	for fixed installation	from - 30 to + 80°C
DC loop resistance at 20°C, maximum	184 Ω/km	for movable installation	from - 5 to + 70°C
Mutual capacitance at 1 kHz, approximate	160 nF/km	Minimum bending radius	10 x cable diameter
Insulation resistance, minimum	20 MΩ·km	Cable combustibility	flame retardant
Inductance, approximate	0.7 mH/km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Impedance, approximate	80 Ω	Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0082 003	2 x 2 x 0,22	6.1	21	43
0082 004	4 x 2 x 0,22	7.0	33	64
0082 005	5 x 2 x 0,22	7.8	38	77

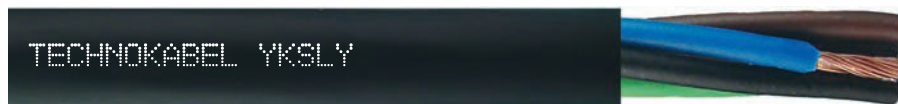
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0082 006	7 x 2 x 0,22	8.4	48	96
0082 007	10 x 2 x 0,22	10.4	78	145
0082 008	12 x 2 x 0,22	10.9	88	163

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLY

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



Operating voltage  
300/300 V



Test voltage  
core  $\le 0,5\text{mm}^2$   
1,2 kV



Test voltage  
core  $> 0,5\text{mm}^2$   
1,5 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

## APPLICATIONS

**TECHNOKONTROL YKSLY** are control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLY-Nr** - cables with black conductor insulation and white conductor numbers printed on it for identification, available for cross-section  $0,5\text{ mm}^2$  and bigger.

**TECHNOKONTROL YKSLY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL IB-YKSLY** - specially designed intrinsically safe cable.

## TECHNOKONTROL YKSLY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	55.4	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	100	100	120	120	130	130

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-14

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0283 060	2 x 0,35	3.6	6.7	17
0283 061	3 x 0,35	3.8	10.1	22
0283 062	4 x 0,35	4.1	13.4	26
0283 063	5 x 0,35	4.5	16.8	33
0283 002	6 x 0,35	4.8	20.2	39
0283 064	7 x 0,35	4.8	23.5	41
0283 065	8 x 0,35	5.4	26.9	48
0283 066	10 x 0,35	6.3	33.6	59
0283 067	12 x 0,35	6.5	40.3	69
0283 068	14 x 0,35	6.9	47.0	78
0283 069	16 x 0,35	7.2	53.8	88
0283 070	19 x 0,35	7.6	63.8	100
0283 071	20 x 0,35	8.0	67.2	110
0283 072	21 x 0,35	8.0	70.6	110
0283 073	24 x 0,35	8.9	80.6	125
0283 074	25 x 0,35	9.1	84.0	134
0283 075	27 x 0,35	9.1	90.7	138
0283 076	30 x 0,35	9.8	100.8	161
0283 077	32 x 0,35	10.2	107.5	174
0283 078	33 x 0,35	10.2	110.9	176
0283 079	34 x 0,35	10.6	114.2	187
0283 080	37 x 0,35	10.6	124.3	192
0283 081	40 x 0,35	11.0	134.4	207
0283 082	42 x 0,35	11.3	141.1	221
0283 083	44 x 0,35	12.0	147.8	232
0283 084	48 x 0,35	12.2	161.3	249
0283 085	50 x 0,35	12.6	168.0	264
0283 086	52 x 0,35	12.6	174.7	268
0283 087	56 x 0,35	12.9	188.2	286
0283 088	61 x 0,35	13.3	205.0	307
0283 089	65 x 0,35	13.7	218.4	325
0283 090	75 x 0,35	15.0	252.0	379
0283 091	80 x 0,35	15.3	268.8	401

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0283 092	100 x 0,35	16.9	336.0	496
0283 046	2 x 0,5	4.1	9.6	22
0283 052	3 x 0,5	4.3	14.4	28
0283 045	4 x 0,5	4.7	19.2	35
0283 093	5 x 0,5	5.4	24.0	47
0283 094	6 x 0,5	5.9	28.8	56
0283 041	7 x 0,5	5.9	33.6	59
0283 095	8 x 0,5	6.3	38.4	68
0283 096	10 x 0,5	7.4	48.0	81
0283 047	12 x 0,5	7.6	57.6	94
0283 097	14 x 0,5	8.0	67.2	107
0283 098	16 x 0,5	8.5	76.8	122
0283 099	19 x 0,5	9.0	91.2	139
0283 044	20 x 0,5	9.8	96.0	162
0283 100	21 x 0,5	9.8	100.8	164
0283 057	24 x 0,5	10.9	115.2	184
0283 101	27 x 0,5	11.1	129.6	203
0283 102	30 x 0,5	11.5	144.0	222
0283 103	33 x 0,5	12.2	158.4	250
0283 104	37 x 0,5	12.7	177.6	274
0283 105	44 x 0,5	14.4	211.2	330
0283 106	48 x 0,5	14.6	230.4	354
0283 107	52 x 0,5	15.0	249.6	380
0283 108	56 x 0,5	15.5	268.8	407
0283 109	61 x 0,5	16.0	292.8	438
0283 110	65 x 0,5	16.4	312.0	466
0283 111	75 x 0,5	17.7	360.0	529
0283 112	80 x 0,5	18.3	384.0	570
0283 113	100 x 0,5	20.2	480.0	707
0283 006	2 x 0,75	4.5	14.4	27
0283 051	3 x 0,75	4.7	21.6	36
0283 007	4 x 0,75	5.4	28.8	48



## TECHNOKONTROL YKSLY

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0283 056	5 x 0,75	5.9	36.0	60
0283 054	7 x 0,75	6.4	50.4	76
0283 008	10 x 0,75	8.1	72.0	105
0283 114	12 x 0,75	8.4	86.4	122
0283 009	14 x 0,75	8.8	100.8	140
0283 058	16 x 0,75	9.7	115.2	169
0283 010	19 x 0,75	10.3	136.8	194
0283 115	24 x 0,75	12.2	172.8	247
0283 116	27 x 0,75	12.4	194.4	272
0283 011	30 x 0,75	12.9	216.0	299
0283 117	33 x 0,75	13.4	237.6	327
0283 118	37 x 0,75	14.1	266.4	367
0283 119	44 x 0,75	15.8	316.8	432
0283 120	48 x 0,75	16.1	345.6	466
0283 121	52 x 0,75	16.6	374.4	501
0283 122	56 x 0,75	17.1	403.2	537
0283 123	61 x 0,75	17.6	439.2	578
0283 124	65 x 0,75	18.3	468.0	625
0283 125	75 x 0,75	19.8	540.0	711
0283 126	80 x 0,75	20.2	576.0	754
0283 127	100 x 0,75	22.5	720.0	949
0283 012	2 x 1,0	4.8	19.2	33
0283 013	3 x 1,0	5.3	28.8	47
0283 014	4 x 1,0	5.8	38.4	59
0283 015	5 x 1,0	6.4	48.0	74
0283 017	7 x 1,0	6.9	67.2	94
0283 019	10 x 1,0	8.8	96.0	132
0283 020	12 x 1,0	9.1	115.2	154
0283 021	14 x 1,0	10.0	134.4	186
0283 022	16 x 1,0	10.6	153.6	212
0283 128	19 x 1,0	11.2	182.4	244
0283 129	24 x 1,0	13.3	230.4	311
0283 130	27 x 1,0	13.6	259.2	344
0283 131	30 x 1,0	14.3	288.0	385
0283 132	33 x 1,0	14.8	316.8	421
0283 133	37 x 1,0	15.4	355.2	464
0283 134	44 x 1,0	17.3	422.4	547
0283 135	48 x 1,0	17.6	460.8	591
0283 136	52 x 1,0	18.3	499.2	645
0283 137	56 x 1,0	18.8	537.6	692
0283 138	61 x 1,0	19.4	585.6	745
0283 139	65 x 1,0	20.0	624.0	794
0283 140	75 x 1,0	21.6	720.0	905
0283 141	80 x 1,0	22.1	768.0	960
0283 142	100 x 1,0	24.6	960.0	1207
0283 024	2 x 1,5	5.8	28.8	48
0283 026	3 x 1,5	6.1	43.2	64

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0283 027	4 x 1,5	6.7	57.6	82
0283 028	5 x 1,5	7.4	72.0	102
0283 030	7 x 1,5	8.0	100.8	132
0283 031	10 x 1,5	10.7	144.0	196
0283 032	12 x 1,5	11.1	172.8	228
0283 033	14 x 1,5	11.9	201.6	267
0283 143	16 x 1,5	12.5	230.4	304
0283 034	19 x 1,5	13.2	273.6	350
0283 035	24 x 1,5	15.7	345.6	446
0283 144	27 x 1,5	16.0	388.8	494
0283 036	30 x 1,5	16.6	432.0	543
0283 145	33 x 1,5	17.3	475.2	596
0283 146	37 x 1,5	18.2	532.8	667
0283 147	44 x 1,5	20.4	633.6	787
0283 148	48 x 1,5	20.8	691.2	851
0283 149	52 x 1,5	21.4	748.8	915
0283 150	56 x 1,5	22.0	806.4	984
0283 151	61 x 1,5	22.9	878.4	1073
0283 152	65 x 1,5	23.6	936.0	1143
0283 153	75 x 1,5	25.6	1080.0	1304
0283 154	80 x 1,5	26.1	1152.0	1384
0283 155	100 x 1,5	28.9	1440.0	1726
0283 042	2 x 2,5	6.6	48.0	68
0283 037	3 x 2,5	7.0	72.0	93
0283 039	4 x 2,5	7.7	96.0	119
0283 040	5 x 2,5	8.5	120.0	150
0283 156	7 x 2,5	9.7	168.0	205
0283 059	10 x 2,5	12.6	240.0	295
0283 157	12 x 2,5	13.1	288.0	344
0283 158	14 x 2,5	14.0	336.0	403
0283 159	16 x 2,5	14.7	384.0	459
0283 160	19 x 2,5	15.6	456.0	530
0283 161	24 x 2,5	18.5	576.0	673
0283 162	27 x 2,5	18.9	648.0	747
0283 163	30 x 2,5	19.6	720.0	823
0283 164	33 x 2,5	20.4	792.0	903
0283 165	37 x 2,5	21.2	888.0	998
0283 166	44 x 2,5	24.1	1056.0	1193
0283 167	48 x 2,5	24.5	1152.0	1291
0283 168	52 x 2,5	25.2	1248.0	1391
0283 169	56 x 2,5	26.0	1344.0	1496
0283 170	61 x 2,5	26.8	1464.0	1616
0283 171	65 x 2,5	27.6	1560.0	1723
0283 172	75 x 2,5	29.9	1800.0	1968
0283 173	80 x 2,5	30.8	1920.0	2107
0283 174	100 x 2,5	34.1	2400.0	2632

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLY-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



Operating voltage  
300/300 V



Test voltage  
core <math>\leq 0,5\text{mm}^2</math>  
1,2 kV



Test voltage  
core > 1,5 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application

## APPLICATIONS

**TECHNOKONTROL YKSLY-P** are multipair control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 compatible with IEC 60189-2,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLY-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLY-P** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLH-P** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLY-P** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL IB-YKSLY-P** - specially designed intrinsically safe cable.

## TECHNOKONTROL YKSLY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	110.8	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	100	100	120	120	130	130

Operating voltage Uo/U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
Capacitance unbalance, maximum	300 pF/100 m	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-16

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0289 018	2 x 2 x 0,35	5.6	13.4	36
0289 019	3 x 2 x 0,35	5.9	20.2	42
0289 020	4 x 2 x 0,35	6.4	26.9	52
0289 021	5 x 2 x 0,35	7.1	33.6	63
0289 022	6 x 2 x 0,35	7.7	40.3	72
0289 023	7 x 2 x 0,35	7.7	47.0	81
0289 024	8 x 2 x 0,35	8.2	53.8	91
0289 025	10 x 2 x 0,35	9.8	67.2	121
0289 026	12 x 2 x 0,35	10.2	80.6	139
0289 027	14 x 2 x 0,35	10.9	94.1	158
0289 028	16 x 2 x 0,35	11.8	107.5	183
0289 029	18 x 2 x 0,35	12.4	121.0	202
0289 030	20 x 2 x 0,35	13.0	134.4	221
0289 031	24 x 2 x 0,35	14.2	161.3	266
0289 032	25 x 2 x 0,35	14.5	168.0	276
0289 033	30 x 2 x 0,35	15.7	201.6	323
0289 034	31 x 2 x 0,35	15.9	208.3	332
0289 035	33 x 2 x 0,35	16.3	221.8	350
0289 036	37 x 2 x 0,35	17.2	248.6	388
0289 037	40 x 2 x 0,35	17.8	268.8	415
0289 038	44 x 2 x 0,35	18.8	295.7	462
0289 039	48 x 2 x 0,35	19.5	322.6	498
0289 040	50 x 2 x 0,35	19.9	336.0	517
0289 041	52 x 2 x 0,35	20.2	349.4	535
0289 042	56 x 2 x 0,35	20.9	376.3	572
0289 002	2 x 2 x 0,5	6.5	19.2	48
0289 009	3 x 2 x 0,5	6.9	28.8	57
0289 001	4 x 2 x 0,5	7.6	38.4	71
0289 010	5 x 2 x 0,5	8.3	48.0	85
0289 043	6 x 2 x 0,5	9.1	57.6	99
0289 011	7 x 2 x 0,5	9.1	67.2	111
0289 044	8 x 2 x 0,5	10.1	76.8	135
0289 045	10 x 2 x 0,5	11.5	96.0	164
0289 012	12 x 2 x 0,5	12.3	115.2	197
0289 046	14 x 2 x 0,5	13.1	134.4	224
0289 008	16 x 2 x 0,5	14.1	153.6	259
0289 047	18 x 2 x 0,5	14.8	172.8	286

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0289 048	20 x 2 x 0,5	15.5	192.0	313
0289 049	24 x 2 x 0,5	16.8	230.4	368
0289 050	25 x 2 x 0,5	17.1	240.0	381
0289 051	30 x 2 x 0,5	18.8	288.0	457
0289 052	31 x 2 x 0,5	19.0	297.6	470
0289 053	33 x 2 x 0,5	19.6	316.8	498
0289 054	37 x 2 x 0,5	20.6	355.2	550
0289 055	40 x 2 x 0,5	21.3	384.0	590
0289 056	44 x 2 x 0,5	22.4	422.4	654
0289 057	48 x 2 x 0,5	23.3	460.8	707
0289 058	50 x 2 x 0,5	23.8	480.0	731
0289 059	52 x 2 x 0,5	24.2	499.2	758
0289 060	56 x 2 x 0,5	25.0	537.6	810
0289 016	2 x 2 x 0,75	7.1	28.8	63
0289 017	3 x 2 x 0,75	7.5	43.2	72
0289 003	4 x 2 x 0,75	8.3	57.6	90
0289 061	5 x 2 x 0,75	9.6	72.0	119
0289 062	7 x 2 x 0,75	10.4	100.8	155
0289 063	10 x 2 x 0,75	12.9	144.0	220
0289 064	12 x 2 x 0,75	13.5	172.8	255
0289 065	14 x 2 x 0,75	14.6	201.6	299
0289 066	16 x 2 x 0,75	15.5	230.4	336
0289 067	24 x 2 x 0,75	18.7	345.6	491
0289 068	27 x 2 x 0,75	19.7	388.8	545
0289 069	30 x 2 x 0,75	20.7	432.0	600
0289 070	33 x 2 x 0,75	21.6	475.2	653
0289 071	37 x 2 x 0,75	22.9	532.8	736
0289 004	2 x 2 x 1,0	7.7	38.4	75
0289 005	3 x 2 x 1,0	8.2	57.6	89
0289 014	4 x 2 x 1,0	9.0	76.8	112
0289 006	5 x 2 x 1,0	10.4	96.0	147
0289 072	7 x 2 x 1,0	11.3	134.4	193
0289 007	10 x 2 x 1,0	14.2	192.0	282
0289 073	12 x 2 x 1,0	14.9	230.4	327
0289 074	14 x 2 x 1,0	15.9	268.8	375
0289 075	16 x 2 x 1,0	16.9	307.2	423

## TECHNOKONTROL YKSLY-P

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0289 076	24 x 2 x 1,0	20.4	460.8	619
0289 077	27 x 2 x 1,0	21.5	518.4	689
0289 078	30 x 2 x 1,0	22.8	576.0	770
0289 079	33 x 2 x 1,0	23.8	633.6	838
0289 080	37 x 2 x 1,0	25.1	710.4	930
0289 013	2 x 2 x 1,5	9.0	57.6	98
0289 081	3 x 2 x 1,5	9.9	86.4	133
0289 082	4 x 2 x 1,5	10.9	115.2	168
0289 083	5 x 2 x 1,5	12.3	144.0	210
0289 084	7 x 2 x 1,5	13.4	201.6	278
0289 085	10 x 2 x 1,5	16.6	288.0	394
0289 086	12 x 2 x 1,5	17.4	345.6	460

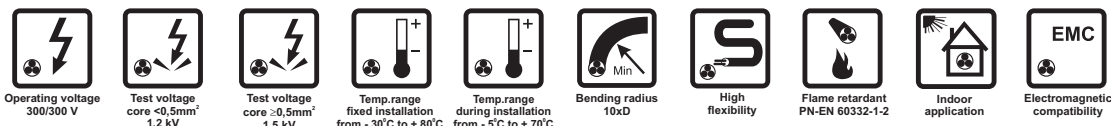
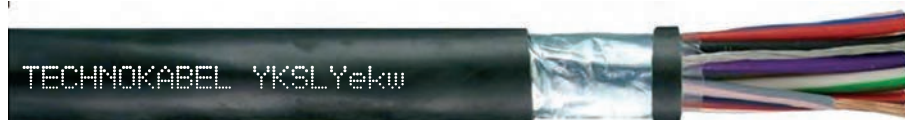
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0289 087	14 x 2 x 1,5	18.8	403.2	537
0289 088	16 x 2 x 1,5	20.0	460.8	607
0289 089	24 x 2 x 1,5	24.2	691.2	887
0289 090	2 x 2 x 2,5	10.8	96.0	153
0289 091	3 x 2 x 2,5	11.5	144.0	192
0289 092	4 x 2 x 2,5	12.9	192.0	252
0289 093	5 x 2 x 2,5	14.5	240.0	314
0289 094	7 x 2 x 2,5	15.8	336.0	418
0289 095	10 x 2 x 2,5	19.5	480.0	592
0289 096	12 x 2 x 2,5	20.5	576.0	694
0289 097	14 x 2 x 2,5	22.0	672.0	799
0289 098	16 x 2 x 2,5	23.5	768.0	912

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekw

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YKSLYekw** are overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-Nr** - cables with black conductor insulation and white conductor numbers printed on it for identification, available for cross-section  $0.5 \text{ mm}^2$  and bigger.

**TECHNOKONTROL YKSLYekw-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLHekw** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLYekw** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL IB-YKSLYekw** - specially designed intrinsically safe cable.

## TECHNOKONTROL YKSLYekw

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	55.4	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	110	110	120	130	140	140

Operating voltage Uo/U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-14

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0311 055	2 x 0,35	3.7	9.1	21
0311 056	3 x 0,35	3.9	12.5	25
0311 039	4 x 0,35	4.2	15.8	30
0311 057	5 x 0,35	4.6	19.2	36
0311 036	6 x 0,35	4.9	22.6	42
0311 058	7 x 0,35	4.9	25.9	44
0311 059	8 x 0,35	5.5	29.3	52
0311 051	10 x 0,35	6.4	36.0	63
0311 060	12 x 0,35	6.6	42.7	73
0311 061	14 x 0,35	7.0	49.4	82
0311 062	16 x 0,35	7.3	56.2	92
0311 063	19 x 0,35	7.7	66.2	105
0311 064	20 x 0,35	8.1	69.6	114
0311 065	21 x 0,35	8.1	73.0	114
0311 066	24 x 0,35	9.0	83.0	130
0311 067	25 x 0,35	9.6	86.4	148
0311 068	27 x 0,35	9.6	93.1	152
0311 069	30 x 0,35	9.9	103.2	166
0311 070	32 x 0,35	10.3	109.9	179
0311 071	33 x 0,35	10.3	113.3	181
0311 072	34 x 0,35	10.7	116.6	192
0311 073	37 x 0,35	10.7	126.7	198
0311 074	40 x 0,35	11.1	136.8	212
0311 075	42 x 0,35	11.4	143.5	227
0311 076	44 x 0,35	12.1	150.2	238
0311 077	48 x 0,35	12.3	163.7	255
0311 078	50 x 0,35	12.7	170.4	269
0311 079	52 x 0,35	12.7	177.1	273
0311 080	56 x 0,35	13.0	190.6	292
0311 081	61 x 0,35	13.4	207.4	313
0311 001	2 x 0,5	4.2	12.0	26
0311 002	3 x 0,5	4.4	16.8	32
0311 003	4 x 0,5	4.8	21.6	39
0311 004	5 x 0,5	5.5	26.4	51
0311 082	6 x 0,5	6.0	31.2	60
0311 048	7 x 0,5	6.0	36.0	62

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0311 005	8 x 0,5	6.4	40.8	72
0311 037	10 x 0,5	7.5	50.4	85
0311 038	12 x 0,5	7.7	60.0	98
0311 083	14 x 0,5	8.1	69.6	111
0311 027	16 x 0,5	8.6	79.2	126
0311 084	19 x 0,5	9.1	93.6	144
0311 028	20 x 0,5	9.9	98.4	167
0311 085	21 x 0,5	9.9	103.2	169
0311 086	24 x 0,5	11.0	117.6	190
0311 087	27 x 0,5	11.2	132.0	208
0311 088	30 x 0,5	11.8	146.4	234
0311 089	33 x 0,5	12.3	160.8	255
0311 090	37 x 0,5	12.8	180.0	280
0311 091	44 x 0,5	14.5	213.6	336
0311 092	48 x 0,5	14.7	232.8	361
0311 093	52 x 0,5	15.1	252.0	386
0311 007	2 x 0,75	4.6	19.2	33
0311 008	3 x 0,75	4.8	26.4	42
0311 009	4 x 0,75	5.5	33.6	54
0311 041	5 x 0,75	6.0	40.8	65
0311 094	7 x 0,75	6.5	55.2	82
0311 010	10 x 0,75	8.2	76.8	112
0311 095	12 x 0,75	8.5	91.2	129
0311 096	14 x 0,75	8.9	105.6	146
0311 029	16 x 0,75	9.8	120.0	176
0311 097	19 x 0,75	10.4	141.6	201
0311 031	24 x 0,75	12.3	177.6	255
0311 098	27 x 0,75	12.5	199.2	280
0311 099	30 x 0,75	13.0	220.8	306
0311 100	33 x 0,75	13.5	242.4	335
0311 101	37 x 0,75	14.2	271.2	375
0311 102	44 x 0,75	15.9	321.6	441
0311 103	48 x 0,75	16.2	350.4	475
0311 104	52 x 0,75	16.7	379.2	509
0311 011	2 x 1,0	4.9	24.0	39

## TECHNOKONTROL YKSLYekw

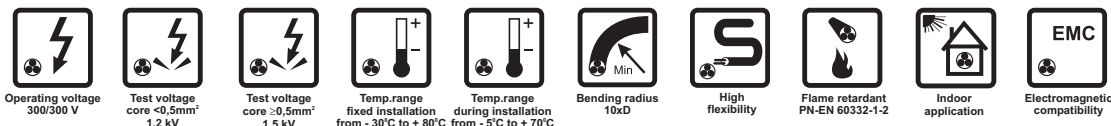
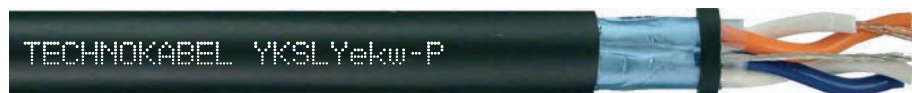
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0311 012	3 x 1,0	5.4	33.6	53
0311 013	4 x 1,0	5.9	43.2	65
0311 014	5 x 1,0	6.5	52.8	80
0311 015	7 x 1,0	7.0	72.0	100
0311 032	10 x 1,0	8.9	100.8	138
0311 045	12 x 1,0	9.6	120.0	170
0311 016	14 x 1,0	10.1	139.2	193
0311 052	16 x 1,0	10.7	158.4	219
0311 024	19 x 1,0	11.3	187.2	251
0311 033	24 x 1,0	13.4	235.2	319
0311 105	27 x 1,0	13.7	264.0	352
0311 035	30 x 1,0	14.4	292.8	393
0311 106	33 x 1,0	14.9	321.6	430
0311 107	37 x 1,0	15.5	360.0	472
0311 108	44 x 1,0	17.4	427.2	556
0311 109	48 x 1,0	17.7	465.6	600
0311 110	52 x 1,0	18.4	504.0	654
0311 018	2 x 1,5	5.9	36.0	55
0311 019	3 x 1,5	6.2	50.4	72
0311 020	4 x 1,5	6.8	64.8	90
0311 021	5 x 1,5	7.5	79.2	110
0311 022	7 x 1,5	8.1	108.0	140
0311 023	10 x 1,5	10.8	151.2	205
0311 111	12 x 1,5	11.2	180.0	238
0311 053	14 x 1,5	12.0	208.8	277
0311 054	16 x 1,5	12.6	237.6	314

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0311 112	19 x 1,5	13.3	280.8	360
0311 026	24 x 1,5	15.8	352.8	457
0311 113	27 x 1,5	16.1	396.0	504
0311 114	30 x 1,5	16.7	439.2	554
0311 115	33 x 1,5	17.4	482.4	607
0311 116	37 x 1,5	18.3	540.0	678
0311 117	44 x 1,5	20.5	640.8	799
0311 118	48 x 1,5	20.9	698.4	863
0311 119	52 x 1,5	21.5	756.0	928
0311 047	2 x 2,5	6.7	55.2	76
0311 043	3 x 2,5	7.1	79.2	101
0311 120	4 x 2,5	7.8	103.2	127
0311 121	5 x 2,5	8.6	127.2	159
0311 034	7 x 2,5	9.8	175.2	214
0311 122	10 x 2,5	12.7	247.2	304
0311 123	12 x 2,5	13.2	295.2	354
0311 124	14 x 2,5	14.1	343.2	413
0311 125	16 x 2,5	14.8	391.2	469
0311 126	19 x 2,5	15.7	463.2	540
0311 127	24 x 2,5	18.6	583.2	684
0311 128	27 x 2,5	19.0	655.2	758
0311 129	30 x 2,5	19.7	727.2	834
0311 130	33 x 2,5	20.5	799.2	915
0311 131	37 x 2,5	21.3	895.2	1011
0311 132	44 x 2,5	24.2	1063.2	1206

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekw-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YKSLYekw-P** are multipair overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 compatible with IEC 60189-2,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekw-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnKSLYekw-P** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**TECHNOKONTROL HKSLHekw-P** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL IB-YKSLYekw-P** - specially designed intrinsically safe cable.



## TECHNOKONTROL YKSLYekw-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	110.8	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	110	110	120	130	140	140

Operating voltage Uo/U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
Capacitance unbalance, maximum	300 pF/100 m	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-16

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0323 062	2 x 2 x 0,35	5.7	15.8	40
0323 063	3 x 2 x 0,35	6.0	22.6	46
0323 064	4 x 2 x 0,35	6.5	29.3	56
0323 065	5 x 2 x 0,35	7.2	36.0	67
0323 066	6 x 2 x 0,35	7.8	42.7	77
0323 067	7 x 2 x 0,35	7.8	49.4	85
0323 068	8 x 2 x 0,35	8.3	56.2	95
0323 069	10 x 2 x 0,35	9.9	69.6	126
0323 046	12 x 2 x 0,35	10.3	83.0	143
0323 070	14 x 2 x 0,35	11.0	96.5	163
0323 071	16 x 2 x 0,35	11.9	109.9	188
0323 072	18 x 2 x 0,35	12.5	123.4	208
0323 073	20 x 2 x 0,35	13.1	136.8	227
0323 074	24 x 2 x 0,35	14.3	163.7	272
0323 075	25 x 2 x 0,35	14.6	170.4	282
0323 076	30 x 2 x 0,35	15.8	204.0	329
0323 077	31 x 2 x 0,35	16.0	210.7	339
0323 078	33 x 2 x 0,35	16.4	224.2	357
0323 079	37 x 2 x 0,35	17.3	251.0	395
0323 080	40 x 2 x 0,35	17.9	271.2	422
0323 081	44 x 2 x 0,35	18.9	298.1	469
0323 082	48 x 2 x 0,35	19.6	325.0	506
0323 083	50 x 2 x 0,35	20.0	338.4	525
0323 084	52 x 2 x 0,35	20.3	351.8	543
0323 085	56 x 2 x 0,35	21.0	378.7	580
0323 005	2 x 2 x 0,5	6.6	21.6	52
0323 006	3 x 2 x 0,5	7.0	31.2	61
0323 007	4 x 2 x 0,5	7.7	40.8	75
0323 008	5 x 2 x 0,5	8.4	50.4	89
0323 009	6 x 2 x 0,5	9.6	60.0	113
0323 010	7 x 2 x 0,5	9.6	69.6	125
0323 011	8 x 2 x 0,5	10.2	79.2	140
0323 012	10 x 2 x 0,5	11.8	98.4	176
0323 013	12 x 2 x 0,5	12.4	117.6	202
0323 086	14 x 2 x 0,5	13.2	136.8	230
0323 015	16 x 2 x 0,5	14.2	156.0	265
0323 018	18 x 2 x 0,5	14.9	175.2	292

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0323 058	20 x 2 x 0,5	15.6	194.4	320
0323 019	24 x 2 x 0,5	16.9	232.8	374
0323 087	25 x 2 x 0,5	17.2	242.4	388
0323 088	30 x 2 x 0,5	18.9	290.4	465
0323 020	31 x 2 x 0,5	19.1	300.0	478
0323 089	33 x 2 x 0,5	19.7	319.2	505
0323 090	37 x 2 x 0,5	20.7	357.6	559
0323 091	40 x 2 x 0,5	21.4	386.4	598
0323 092	44 x 2 x 0,5	22.5	424.8	662
0323 093	48 x 2 x 0,5	23.4	463.2	715
0323 094	50 x 2 x 0,5	23.9	482.4	740
0323 095	52 x 2 x 0,5	24.3	501.6	767
0323 096	56 x 2 x 0,5	25.1	540.0	819
0323 021	2 x 2 x 0,75	7.2	33.6	69
0323 022	3 x 2 x 0,75	7.6	48.0	78
0323 023	4 x 2 x 0,75	8.4	62.4	97
0323 097	5 x 2 x 0,75	9.7	76.8	126
0323 040	7 x 2 x 0,75	10.5	105.6	162
0323 038	10 x 2 x 0,75	13.0	148.8	228
0323 026	12 x 2 x 0,75	13.6	177.6	263
0323 027	14 x 2 x 0,75	14.7	206.4	307
0323 060	16 x 2 x 0,75	15.6	235.2	345
0323 061	24 x 2 x 0,75	18.8	350.4	500
0323 098	27 x 2 x 0,75	19.8	393.6	555
0323 099	30 x 2 x 0,75	20.8	436.8	610
0323 100	33 x 2 x 0,75	21.7	480.0	663
0323 101	37 x 2 x 0,75	23.0	537.6	746
0323 029	2 x 2 x 1,0	7.8	43.2	81
0323 030	3 x 2 x 1,0	8.3	62.4	95
0323 031	4 x 2 x 1,0	9.1	81.6	119
0323 044	5 x 2 x 1,0	10.5	100.8	154
0323 045	7 x 2 x 1,0	11.4	139.2	201
0323 033	10 x 2 x 1,0	14.3	196.8	290
0323 034	12 x 2 x 1,0	15.0	235.2	336
0323 102	14 x 2 x 1,0	16.0	273.6	384
0323 103	16 x 2 x 1,0	17.0	312.0	431

## TECHNOKONTROL YKSLYekw-P

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0323 043	24 x 2 x 1,0	20.5	465.6	629
0323 104	27 x 2 x 1,0	21.6	523.2	699
0323 105	30 x 2 x 1,0	22.9	580.8	781
0323 106	33 x 2 x 1,0	23.9	638.4	848
0323 107	37 x 2 x 1,0	25.2	715.2	941
0323 037	2 x 2 x 1,5	9.1	64.8	107
0323 059	3 x 2 x 1,5	10.0	93.6	142
0323 035	4 x 2 x 1,5	11.0	122.4	177
0323 057	5 x 2 x 1,5	12.4	151.2	220
0323 108	7 x 2 x 1,5	13.5	208.8	287
0323 036	10 x 2 x 1,5	16.7	295.2	404
0323 054	12 x 2 x 1,5	17.5	352.8	471

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0323 109	14 x 2 x 1,5	18.9	410.4	549
0323 055	16 x 2 x 1,5	20.1	468.0	619
0323 056	24 x 2 x 1,5	24.3	698.4	900
0323 110	2 x 2 x 2,5	10.9	103.2	162
0323 111	3 x 2 x 2,5	11.8	151.2	207
0323 112	4 x 2 x 2,5	13.0	199.2	261
0323 113	5 x 2 x 2,5	14.6	247.2	324
0323 114	7 x 2 x 2,5	15.9	343.2	428
0323 041	10 x 2 x 2,5	19.6	487.2	603
0323 115	12 x 2 x 2,5	20.6	583.2	706
0323 116	14 x 2 x 2,5	22.1	679.2	811
0323 117	16 x 2 x 2,5	23.6	775.2	925

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YKSLYekpek

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YKSLYekpek** are multipair, pair and overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 compatible with IEC 60189-2,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YKSLYekpek-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLHekpek** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL YvKSLYekpek** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL IB-YKSLYekpek** - specially designed intrinsically safe cable.

## TECHNOKONTROL YKSLYekpek

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	500	500	500	500	500
Voltage test	V rms	1500	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	220	240	260	260	290

Operating voltage Uo/U 300/300 V  
 Insulation resistance, minimum 20 MΩ·km  
 Inductance, approximate 0.7 mH/km  
 Impedance, approximate 40 Ω  
 Capacitance unbalance, maximum 250 pF/100m

Operating temperature range  
 for fixed installation from - 30 to + 80°C  
 for movable installation from - 5 to + 70°C  
 Minimum bending radius 10 x cable diameter  
 Cable combustibility flame retardant  
 Combustibility tests PN-EN 60332-1-2, IEC 60332-1-2  
 Reference standards WT-TK-18

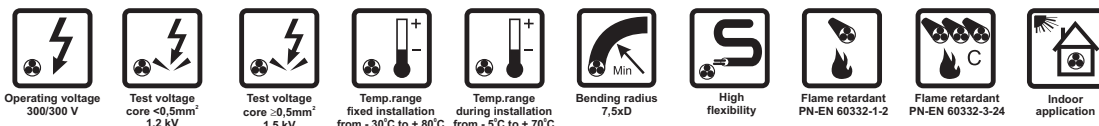
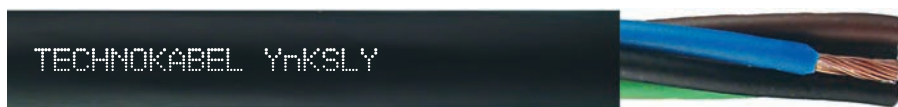
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0301 001	2 x 2 x 0,5	6.9	26.4	64
0301 035	3 x 2 x 0,5	7.3	38.4	73
0301 002	4 x 2 x 0,5	8.1	50.4	91
0301 029	5 x 2 x 0,5	8.9	62.4	109
0301 003	6 x 2 x 0,5	10.1	74.4	126
0301 004	8 x 2 x 0,5	10.8	98.4	168
0301 005	10 x 2 x 0,5	12.5	122.4	216
0301 025	12 x 2 x 0,5	13.0	146.4	250
0301 007	16 x 2 x 0,5	15.0	194.4	328
0301 006	18 x 2 x 0,5	15.7	218.4	363
0301 008	24 x 2 x 0,5	17.9	290.4	468
0301 040	36 x 2 x 0,5	21.6	434.4	685
0301 041	48 x 2 x 0,5	24.8	578.4	902
0301 009	2 x 2 x 0,75	7.5	43.2	86
0301 011	3 x 2 x 0,75	8.0	62.4	98
0301 012	4 x 2 x 0,75	8.8	81.6	123
0301 013	5 x 2 x 0,75	10.1	100.8	159
0301 030	8 x 2 x 0,75	12.0	158.4	233
0301 015	10 x 2 x 0,75	13.6	196.8	293
0301 031	12 x 2 x 0,75	14.5	235.2	348
0301 036	16 x 2 x 0,75	16.4	312.0	448
0301 017	24 x 2 x 0,75	19.8	465.6	654
0301 042	36 x 2 x 0,75	23.9	696.0	957
0301 018	2 x 2 x 1,0	8.1	52.8	102
0301 032	3 x 2 x 1,0	8.6	76.8	115

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0301 037	4 x 2 x 1,0	9.9	100.8	156
0301 033	5 x 2 x 1,0	10.9	124.8	187
0301 043	8 x 2 x 1,0	13.0	196.8	277
0301 038	10 x 2 x 1,0	15.0	244.8	356
0301 019	12 x 2 x 1,0	15.7	292.8	415
0301 024	16 x 2 x 1,0	17.8	388.8	537
0301 044	24 x 2 x 1,0	21.5	580.8	785
0301 045	2 x 2 x 1,5	9.8	79.2	147
0301 020	3 x 2 x 1,5	10.4	115.2	169
0301 023	4 x 2 x 1,5	11.5	151.2	213
0301 046	5 x 2 x 1,5	12.8	187.2	264
0301 021	6 x 2 x 1,5	14.2	223.2	285
0301 047	8 x 2 x 1,5	15.2	295.2	390
0301 014	10 x 2 x 1,5	17.3	367.2	493
0301 048	12 x 2 x 1,5	18.4	439.2	586
0301 022	16 x 2 x 1,5	20.9	583.2	759
0301 049	2 x 2 x 2,5	11.3	117.6	201
0301 050	3 x 2 x 2,5	12.2	172.8	236
0301 051	4 x 2 x 2,5	13.4	228.0	299
0301 039	5 x 2 x 2,5	15.0	283.2	371
0301 052	8 x 2 x 2,5	17.6	448.8	542
0301 053	10 x 2 x 2,5	20.3	559.2	697
0301 054	12 x 2 x 2,5	21.3	669.6	819
0301 055	16 x 2 x 2,5	24.4	890.4	1073

Other cross-sections and pair counts available on request.  
 TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YnKSLY

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YnKSLY** are flame retardant control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YnKSLY-Nr** - cables with black conductor insulation and white conductor numbers printed on it for identification, available for cross-section  $0,5\text{ mm}^2$  and bigger.

**TECHNOKONTROL YnKSLY-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLY** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLH** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL IB-YnKSLY** - specially designed intrinsically safe cable.

## TECHNOKONTROL YnKSLY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	55.4	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	100	100	120	120	130	130

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-14

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0369 014	2 x 0,35	3.6	6.7	17
0369 015	3 x 0,35	3.8	10.1	22
0369 016	4 x 0,35	4.1	13.4	26
0369 017	5 x 0,35	4.5	16.8	33
0369 018	6 x 0,35	4.8	20.2	39
0369 019	7 x 0,35	4.8	23.5	41
0369 020	8 x 0,35	5.4	26.9	48
0369 021	10 x 0,35	6.3	33.6	59
0369 022	12 x 0,35	6.5	40.3	69
0369 023	14 x 0,35	6.9	47.0	78
0369 024	16 x 0,35	7.2	53.8	88
0369 025	19 x 0,35	7.6	63.8	100
0369 026	20 x 0,35	8.0	67.2	110
0369 027	21 x 0,35	8.0	70.6	110
0369 028	24 x 0,35	8.9	80.6	125
0369 029	25 x 0,35	9.1	84.0	134
0369 030	27 x 0,35	9.1	90.7	138
0369 031	30 x 0,35	9.8	100.8	161
0369 032	32 x 0,35	10.2	107.5	174
0369 033	33 x 0,35	10.2	110.9	176
0369 034	34 x 0,35	10.6	114.2	187
0369 035	37 x 0,35	10.6	124.3	192
0369 036	40 x 0,35	11.0	134.4	207
0369 037	42 x 0,35	11.3	141.1	221
0369 038	44 x 0,35	12.0	147.8	232
0369 039	48 x 0,35	12.2	161.3	249
0369 040	50 x 0,35	12.6	168.0	264
0369 041	52 x 0,35	12.6	174.7	268
0369 042	56 x 0,35	12.9	188.2	286
0369 043	61 x 0,35	13.3	205.0	307
0369 044	65 x 0,35	13.7	218.4	325
0369 045	75 x 0,35	15.0	252.0	379
0369 046	80 x 0,35	15.3	268.8	401

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0369 047	100 x 0,35	16.9	336.0	496
0369 048	2 x 0,5	4.1	9.6	22
0369 049	3 x 0,5	4.3	14.4	28
0369 050	4 x 0,5	4.7	19.2	35
0369 051	5 x 0,5	5.4	24.0	47
0369 052	6 x 0,5	5.9	28.8	56
0369 053	7 x 0,5	5.9	33.6	59
0369 054	8 x 0,5	6.3	38.4	68
0369 055	10 x 0,5	7.4	48.0	81
0369 056	12 x 0,5	7.6	57.6	94
0369 057	14 x 0,5	8.0	67.2	107
0369 058	16 x 0,5	8.5	76.8	122
0369 059	19 x 0,5	9.0	91.2	139
0369 060	20 x 0,5	9.8	96.0	162
0369 061	21 x 0,5	9.8	100.8	164
0369 062	24 x 0,5	10.9	115.2	184
0369 063	27 x 0,5	11.1	129.6	203
0369 064	30 x 0,5	11.5	144.0	222
0369 065	33 x 0,5	12.2	158.4	250
0369 066	37 x 0,5	12.7	177.6	274
0369 067	44 x 0,5	14.4	211.2	330
0369 068	48 x 0,5	14.6	230.4	354
0369 069	52 x 0,5	15.0	249.6	380
0369 070	56 x 0,5	15.5	268.8	407
0369 071	61 x 0,5	16.0	292.8	438
0369 072	65 x 0,5	16.4	312.0	466
0369 073	75 x 0,5	17.7	360.0	529
0369 074	80 x 0,5	18.3	384.0	570
0369 075	100 x 0,5	20.2	480.0	707
0369 001	2 x 0,75	4.5	14.4	27
0369 076	3 x 0,75	4.7	21.6	36
0369 077	4 x 0,75	5.4	28.8	48

## TECHNOKONTROL YnKSLY

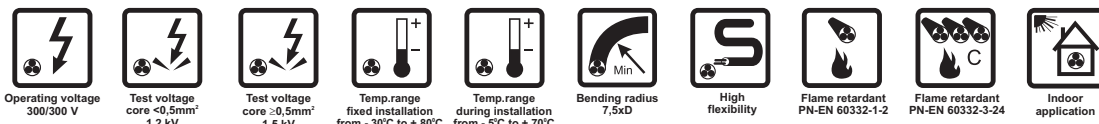
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0369 078	5 x 0,75	5.9	36.0	60
0369 079	7 x 0,75	6.4	50.4	76
0369 080	10 x 0,75	8.1	72.0	105
0369 081	12 x 0,75	8.4	86.4	122
0369 082	14 x 0,75	8.8	100.8	140
0369 083	16 x 0,75	9.7	115.2	169
0369 084	19 x 0,75	10.3	136.8	194
0369 085	24 x 0,75	12.2	172.8	247
0369 086	27 x 0,75	12.4	194.4	272
0369 087	30 x 0,75	12.9	216.0	299
0369 088	33 x 0,75	13.4	237.6	327
0369 089	37 x 0,75	14.1	266.4	367
0369 090	44 x 0,75	15.8	316.8	432
0369 091	48 x 0,75	16.1	345.6	466
0369 092	52 x 0,75	16.6	374.4	501
0369 093	56 x 0,75	17.1	403.2	537
0369 094	61 x 0,75	17.6	439.2	578
0369 095	65 x 0,75	18.3	468.0	625
0369 096	75 x 0,75	19.8	540.0	711
0369 097	80 x 0,75	20.2	576.0	754
0369 098	100 x 0,75	22.5	720.0	949
0369 011	2 x 1,0	4.8	19.2	33
0369 008	3 x 1,0	5.3	28.8	47
0369 012	4 x 1,0	5.8	38.4	59
0369 009	5 x 1,0	6.4	48.0	74
0369 013	7 x 1,0	6.9	67.2	94
0369 099	10 x 1,0	8.8	96.0	132
0369 100	12 x 1,0	9.1	115.2	154
0369 101	14 x 1,0	10.0	134.4	186
0369 102	16 x 1,0	10.6	153.6	212
0369 103	19 x 1,0	11.2	182.4	244
0369 104	24 x 1,0	13.3	230.4	311
0369 105	27 x 1,0	13.6	259.2	344
0369 106	30 x 1,0	14.3	288.0	385
0369 107	33 x 1,0	14.8	316.8	421
0369 108	37 x 1,0	15.4	355.2	464
0369 109	44 x 1,0	17.3	422.4	547
0369 110	48 x 1,0	17.6	460.8	591
0369 111	52 x 1,0	18.3	499.2	645
0369 112	56 x 1,0	18.8	537.6	692
0369 113	61 x 1,0	19.4	585.6	745
0369 114	65 x 1,0	20.0	624.0	794
0369 115	75 x 1,0	21.6	720.0	905
0369 116	80 x 1,0	22.1	768.0	960
0369 117	100 x 1,0	24.6	960.0	1207
0369 007	2 x 1,5	5.8	28.8	48
0369 003	3 x 1,5	6.1	43.2	64

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0369 118	4 x 1,5	6.7	57.6	82
0369 004	5 x 1,5	7.4	72.0	102
0369 119	7 x 1,5	8.0	100.8	132
0369 120	10 x 1,5	10.7	144.0	196
0369 121	12 x 1,5	11.1	172.8	228
0369 122	14 x 1,5	11.9	201.6	267
0369 123	16 x 1,5	12.5	230.4	304
0369 010	19 x 1,5	13.2	273.6	350
0369 124	24 x 1,5	15.7	345.6	446
0369 125	27 x 1,5	16.0	388.8	494
0369 126	30 x 1,5	16.6	432.0	543
0369 127	33 x 1,5	17.3	475.2	596
0369 128	37 x 1,5	18.2	532.8	667
0369 129	44 x 1,5	20.4	633.6	787
0369 130	48 x 1,5	20.8	691.2	851
0369 131	52 x 1,5	21.4	748.8	915
0369 132	56 x 1,5	22.0	806.4	984
0369 133	61 x 1,5	22.9	878.4	1073
0369 134	65 x 1,5	23.6	936.0	1143
0369 135	75 x 1,5	25.6	1080.0	1304
0369 136	80 x 1,5	26.1	1152.0	1384
0369 137	100 x 1,5	28.9	1440.0	1726
0369 138	2 x 2,5	6.6	48.0	68
0369 139	3 x 2,5	7.0	72.0	93
0369 140	4 x 2,5	7.7	96.0	119
0369 141	5 x 2,5	8.5	120.0	150
0369 142	7 x 2,5	9.7	168.0	205
0369 143	10 x 2,5	12.6	240.0	295
0369 144	12 x 2,5	13.1	288.0	344
0369 145	14 x 2,5	14.0	336.0	403
0369 146	16 x 2,5	14.7	384.0	459
0369 147	19 x 2,5	15.6	456.0	530
0369 148	24 x 2,5	18.5	576.0	673
0369 149	27 x 2,5	18.9	648.0	747
0369 150	30 x 2,5	19.6	720.0	823
0369 151	33 x 2,5	20.4	792.0	903
0369 152	37 x 2,5	21.2	888.0	998
0369 153	44 x 2,5	24.1	1056.0	1193
0369 154	48 x 2,5	24.5	1152.0	1291
0369 155	52 x 2,5	25.2	1248.0	1391
0369 156	56 x 2,5	26.0	1344.0	1496
0369 157	61 x 2,5	26.8	1464.0	1616
0369 158	65 x 2,5	27.6	1560.0	1723
0369 159	75 x 2,5	29.9	1800.0	1968
0369 160	80 x 2,5	30.8	1920.0	2107
0369 161	100 x 2,5	34.1	2400.0	2632

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YnKSLY-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YnKSLY-P** are multipair flame retardant control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 compatible with IEC 60189-2,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YnKSLY-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLY-P** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLH-P** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL IB-YnKSLY-P** - specially designed intrinsically safe cable.



## TECHNOKONTROL YnKSLY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	110.8	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	100	100	120	120	130	130

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	7.5 x cable diameter
Capacitance unbalance, maximum	300 pF/100 m	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-16

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1724 001	2 x 2 x 0,35	5.6	13.4	36
1724 002	3 x 2 x 0,35	5.9	20.2	42
1724 003	4 x 2 x 0,35	6.4	26.9	52
1724 004	5 x 2 x 0,35	7.1	33.6	63
1724 005	6 x 2 x 0,35	7.7	40.3	72
1724 006	7 x 2 x 0,35	7.7	47.0	81
1724 007	8 x 2 x 0,35	8.2	53.8	91
1724 008	10 x 2 x 0,35	9.8	67.2	121
1724 009	12 x 2 x 0,35	10.2	80.6	139
1724 010	14 x 2 x 0,35	10.9	94.1	158
1724 011	16 x 2 x 0,35	11.8	107.5	183
1724 012	18 x 2 x 0,35	12.4	121.0	202
1724 013	20 x 2 x 0,35	13.0	134.4	221
1724 014	24 x 2 x 0,35	14.2	161.3	266
1724 015	25 x 2 x 0,35	14.5	168.0	276
1724 016	30 x 2 x 0,35	15.7	201.6	323
1724 017	31 x 2 x 0,35	15.9	208.3	332
1724 018	33 x 2 x 0,35	16.3	221.8	350
1724 019	37 x 2 x 0,35	17.2	248.6	388
1724 020	40 x 2 x 0,35	17.8	268.8	415
1724 021	44 x 2 x 0,35	18.8	295.7	462
1724 022	48 x 2 x 0,35	19.5	322.6	498
1724 023	50 x 2 x 0,35	19.9	336.0	517
1724 024	52 x 2 x 0,35	20.2	349.4	535
1724 025	56 x 2 x 0,35	20.9	376.3	572
1724 026	2 x 2 x 0,5	6.5	19.2	48
1724 027	3 x 2 x 0,5	6.9	28.8	57
1724 028	4 x 2 x 0,5	7.6	38.4	71
1724 029	5 x 2 x 0,5	8.3	48.0	85
1724 030	6 x 2 x 0,5	9.1	57.6	99
1724 031	7 x 2 x 0,5	9.1	67.2	111
1724 032	8 x 2 x 0,5	10.1	76.8	135
1724 033	10 x 2 x 0,5	11.5	96.0	164
1724 034	12 x 2 x 0,5	12.3	115.2	197
1724 035	14 x 2 x 0,5	13.1	134.4	224
1724 036	16 x 2 x 0,5	14.1	153.6	259

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1724 037	18 x 2 x 0,5	14.8	172.8	286
1724 038	20 x 2 x 0,5	15.5	192.0	313
1724 039	24 x 2 x 0,5	16.8	230.4	368
1724 040	25 x 2 x 0,5	17.1	240.0	381
1724 041	30 x 2 x 0,5	18.8	288.0	457
1724 042	31 x 2 x 0,5	19.0	297.6	470
1724 043	33 x 2 x 0,5	19.6	316.8	498
1724 044	37 x 2 x 0,5	20.6	355.2	550
1724 045	40 x 2 x 0,5	21.3	384.0	590
1724 046	44 x 2 x 0,5	22.4	422.4	654
1724 047	48 x 2 x 0,5	23.3	460.8	707
1724 048	50 x 2 x 0,5	23.8	480.0	731
1724 049	52 x 2 x 0,5	24.2	499.2	758
1724 050	56 x 2 x 0,5	25.0	537.6	810
1724 051	2 x 2 x 0,75	7.1	28.8	63
1724 052	3 x 2 x 0,75	7.5	43.2	72
1724 053	4 x 2 x 0,75	8.3	57.6	90
1724 054	5 x 2 x 0,75	9.6	72.0	119
1724 055	7 x 2 x 0,75	10.4	100.8	155
1724 056	10 x 2 x 0,75	12.9	144.0	220
1724 057	12 x 2 x 0,75	13.5	172.8	255
1724 058	14 x 2 x 0,75	14.6	201.6	299
1724 059	16 x 2 x 0,75	15.5	230.4	336
1724 060	24 x 2 x 0,75	18.7	345.6	491
1724 061	27 x 2 x 0,75	19.7	388.8	545
1724 062	30 x 2 x 0,75	20.7	432.0	600
1724 063	33 x 2 x 0,75	21.6	475.2	653
1724 064	37 x 2 x 0,75	22.9	532.8	736
1724 065	2 x 2 x 1,0	7.7	38.4	75
1724 066	3 x 2 x 1,0	8.2	57.6	89
1724 067	4 x 2 x 1,0	9.0	76.8	112
1724 068	5 x 2 x 1,0	10.4	96.0	147
1724 069	7 x 2 x 1,0	11.3	134.4	193
1724 070	10 x 2 x 1,0	14.2	192.0	282
1724 071	12 x 2 x 1,0	14.9	230.4	327

## TECHNOKONTROL YnKSLY-P

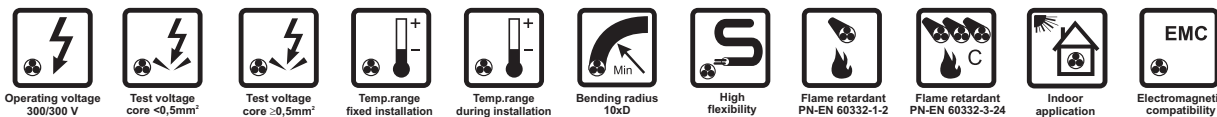
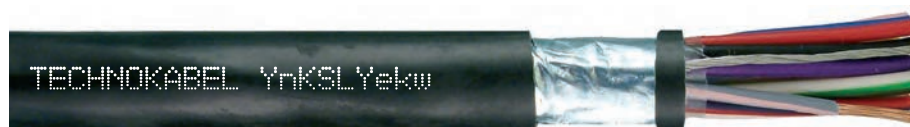
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1724 072	14 x 2 x 1,0	15.9	268.8	375
1724 073	16 x 2 x 1,0	16.9	307.2	423
1724 074	24 x 2 x 1,0	20.4	460.8	619
1724 075	27 x 2 x 1,0	21.5	518.4	689
1724 076	30 x 2 x 1,0	22.8	576.0	770
1724 077	33 x 2 x 1,0	23.8	633.6	838
1724 078	37 x 2 x 1,0	25.1	710.4	930
1724 079	2 x 2 x 1,5	9.0	57.6	98
1724 080	3 x 2 x 1,5	9.9	86.4	133
1724 081	4 x 2 x 1,5	10.9	115.2	168
1724 082	5 x 2 x 1,5	12.3	144.0	210
1724 083	7 x 2 x 1,5	13.4	201.6	278
1724 084	10 x 2 x 1,5	16.6	288.0	394

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1724 085	12 x 2 x 1,5	17.4	345.6	460
1724 086	14 x 2 x 1,5	18.8	403.2	537
1724 087	16 x 2 x 1,5	20.0	460.8	607
1724 088	24 x 2 x 1,5	24.2	691.2	887
1724 089	2 x 2 x 2,5	10.8	96.0	153
1724 090	3 x 2 x 2,5	11.5	144.0	192
1724 091	4 x 2 x 2,5	12.9	192.0	252
1724 092	5 x 2 x 2,5	14.5	240.0	314
1724 093	7 x 2 x 2,5	15.8	336.0	418
1724 094	10 x 2 x 2,5	19.5	480.0	592
1724 095	12 x 2 x 2,5	20.5	576.0	694
1724 096	14 x 2 x 2,5	22.0	672.0	799
1724 097	16 x 2 x 2,5	23.5	768.0	912

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YnKSLYekw

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YnKSLYekw** are overall shielded, flame retardant control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YnKSLYekw-Nr** - cables with black conductor insulation and white conductor numbers printed on it for identification, available for cross-section  $0.5\text{ mm}^2$  and bigger.

**TECHNOKONTROL YnKSLYekw-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL YnvKSLYekw** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**TECHNOKONTROL HKSLHekw** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL IB-YKSLYekw** - specially designed intrinsically safe cable.

## TECHNOKONTROL YnKSLYekw

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	55.4	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	110	110	120	130	140	140

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-14

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0374 022	2 x 0,35	3.7	9.1	21
0374 023	3 x 0,35	3.9	12.5	25
0374 024	4 x 0,35	4.2	15.8	30
0374 025	5 x 0,35	4.6	19.2	36
0374 026	6 x 0,35	4.9	22.6	42
0374 027	7 x 0,35	4.9	25.9	44
0374 028	8 x 0,35	5.5	29.3	52
0374 029	10 x 0,35	6.4	36.0	63
0374 030	12 x 0,35	6.6	42.7	73
0374 031	14 x 0,35	7.0	49.4	82
0374 032	16 x 0,35	7.3	56.2	92
0374 033	19 x 0,35	7.7	66.2	105
0374 034	20 x 0,35	8.1	69.6	114
0374 035	21 x 0,35	8.1	73.0	114
0374 036	24 x 0,35	9.0	83.0	130
0374 037	25 x 0,35	9.6	86.4	148
0374 038	27 x 0,35	9.6	93.1	152
0374 039	30 x 0,35	9.9	103.2	166
0374 040	32 x 0,35	10.3	109.9	179
0374 041	33 x 0,35	10.3	113.3	181
0374 042	34 x 0,35	10.7	116.6	192
0374 043	37 x 0,35	10.7	126.7	198
0374 044	40 x 0,35	11.1	136.8	212
0374 045	42 x 0,35	11.4	143.5	227
0374 046	44 x 0,35	12.1	150.2	238
0374 047	48 x 0,35	12.3	163.7	255
0374 048	50 x 0,35	12.7	170.4	269
0374 049	52 x 0,35	12.7	177.1	273
0374 050	56 x 0,35	13.0	190.6	292
0374 051	61 x 0,35	13.4	207.4	313
0374 009	2 x 0,5	4.2	12.0	26
0374 052	3 x 0,5	4.4	16.8	32
0374 015	4 x 0,5	4.8	21.6	39
0374 053	5 x 0,5	5.5	26.4	51
0374 054	6 x 0,5	6.0	31.2	60
0374 016	7 x 0,5	6.0	36.0	62

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0374 055	8 x 0,5	6.4	40.8	72
0374 056	10 x 0,5	7.5	50.4	85
0374 057	12 x 0,5	7.7	60.0	98
0374 058	14 x 0,5	8.1	69.6	111
0374 059	16 x 0,5	8.6	79.2	126
0374 060	19 x 0,5	9.1	93.6	144
0374 061	20 x 0,5	9.9	98.4	167
0374 062	21 x 0,5	9.9	103.2	169
0374 063	24 x 0,5	11.0	117.6	190
0374 064	27 x 0,5	11.2	132.0	208
0374 065	30 x 0,5	11.8	146.4	234
0374 066	33 x 0,5	12.3	160.8	255
0374 067	37 x 0,5	12.8	180.0	280
0374 068	44 x 0,5	14.5	213.6	336
0374 069	48 x 0,5	14.7	232.8	361
0374 070	52 x 0,5	15.1	252.0	386
0374 002	2 x 0,75	4.6	19.2	33
0374 071	3 x 0,75	4.8	26.4	42
0374 003	4 x 0,75	5.5	33.6	54
0374 072	5 x 0,75	6.0	40.8	65
0374 004	7 x 0,75	6.5	55.2	82
0374 011	10 x 0,75	8.2	76.8	112
0374 073	12 x 0,75	8.5	91.2	129
0374 074	14 x 0,75	8.9	105.6	146
0374 075	16 x 0,75	9.8	120.0	176
0374 076	19 x 0,75	10.4	141.6	201
0374 077	24 x 0,75	12.3	177.6	255
0374 078	27 x 0,75	12.5	199.2	280
0374 005	30 x 0,75	13.0	220.8	306
0374 079	33 x 0,75	13.5	242.4	335
0374 080	37 x 0,75	14.2	271.2	375
0374 081	44 x 0,75	15.9	321.6	441
0374 082	48 x 0,75	16.2	350.4	475
0374 083	52 x 0,75	16.7	379.2	509
0374 013	2 x 1,0	4.9	24.0	39

## TECHNOKONTROL YnKSLYekw

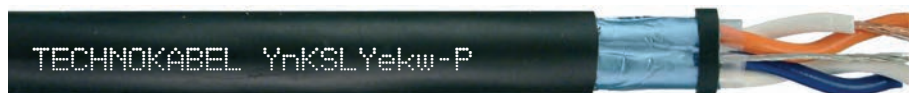
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0374 012	3 x 1,0	5.4	33.6	53
0374 006	4 x 1,0	5.9	43.2	65
0374 017	5 x 1,0	6.5	52.8	80
0374 014	7 x 1,0	7.0	72.0	100
0374 018	10 x 1,0	8.9	100.8	138
0374 019	12 x 1,0	9.6	120.0	170
0374 084	14 x 1,0	10.1	139.2	193
0374 020	16 x 1,0	10.7	158.4	219
0374 085	19 x 1,0	11.3	187.2	251
0374 086	24 x 1,0	13.4	235.2	319
0374 087	27 x 1,0	13.7	264.0	352
0374 088	30 x 1,0	14.4	292.8	393
0374 089	33 x 1,0	14.9	321.6	430
0374 090	37 x 1,0	15.5	360.0	472
0374 091	44 x 1,0	17.4	427.2	556
0374 092	48 x 1,0	17.7	465.6	600
0374 093	52 x 1,0	18.4	504.0	654
0374 010	2 x 1,5	5.9	36.0	55
0374 094	3 x 1,5	6.2	50.4	72
0374 095	4 x 1,5	6.8	64.8	90
0374 096	5 x 1,5	7.5	79.2	110
0374 097	7 x 1,5	8.1	108.0	140
0374 098	10 x 1,5	10.8	151.2	205
0374 099	12 x 1,5	11.2	180.0	238
0374 100	14 x 1,5	12.0	208.8	277
0374 101	16 x 1,5	12.6	237.6	314

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0374 102	19 x 1,5	13.3	280.8	360
0374 103	24 x 1,5	15.8	352.8	457
0374 104	27 x 1,5	16.1	396.0	504
0374 105	30 x 1,5	16.7	439.2	554
0374 106	33 x 1,5	17.4	482.4	607
0374 107	37 x 1,5	18.3	540.0	678
0374 108	44 x 1,5	20.5	640.8	799
0374 109	48 x 1,5	20.9	698.4	863
0374 110	52 x 1,5	21.5	756.0	928
0374 111	2 x 2,5	6.7	55.2	76
0374 112	3 x 2,5	7.1	79.2	101
0374 113	4 x 2,5	7.8	103.2	127
0374 114	5 x 2,5	8.6	127.2	159
0374 115	7 x 2,5	9.8	175.2	214
0374 116	10 x 2,5	12.7	247.2	304
0374 117	12 x 2,5	13.2	295.2	354
0374 118	14 x 2,5	14.1	343.2	413
0374 119	16 x 2,5	14.8	391.2	469
0374 120	19 x 2,5	15.7	463.2	540
0374 121	24 x 2,5	18.6	583.2	684
0374 122	27 x 2,5	19.0	655.2	758
0374 123	30 x 2,5	19.7	727.2	834
0374 124	33 x 2,5	20.5	799.2	915
0374 125	37 x 2,5	21.3	895.2	1011
0374 126	44 x 2,5	24.2	1063.2	1206

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL YnKSLYekw-P

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



### APPLICATIONS

**TECHNOKONTROL YnKSLYekw-P** are multipair overall shielded, flame retardant control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cable sheath is then made of special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code according to PN-92/T-90321 compatible with IEC 60189-2,
- insulated conductors twisted into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black (RAL 9005) special self-extinguishing PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL YnKSLYekw-P-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**TECHNOKONTROL HKSLHekw-P** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**TECHNOKONTROL IB-YnKSLYekw-P** - specially designed intrinsically safe cable.

## TECHNOKONTROL YnKSLYekw-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.35	0.5	0.75	1.0	1.5	2.5
Operating voltage, peak value	V	350	500	500	500	500	500
Voltage test	V rms	1200	1500	1500	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	110.8	78.0	52.0	39.0	26.6	15.96
Mutual capacitance at 1 kHz, approximate	nF/km	110	110	120	130	140	140

Operating voltage U <sub>0</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
Capacitance unbalance, maximum	300 pF/100 m	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-16

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0970 018	2 x 2 x 0,35	5.7	15.8	40
0970 019	3 x 2 x 0,35	6.0	22.6	46
0970 020	4 x 2 x 0,35	6.5	29.3	56
0970 021	5 x 2 x 0,35	7.2	36.0	67
0970 022	6 x 2 x 0,35	7.8	42.7	77
0970 023	7 x 2 x 0,35	7.8	49.4	85
0970 024	8 x 2 x 0,35	8.3	56.2	95
0970 025	10 x 2 x 0,35	9.9	69.6	126
0970 026	12 x 2 x 0,35	10.3	83.0	143
0970 027	14 x 2 x 0,35	11.0	96.5	163
0970 028	16 x 2 x 0,35	11.9	109.9	188
0970 029	18 x 2 x 0,35	12.5	123.4	208
0970 030	20 x 2 x 0,35	13.1	136.8	227
0970 031	24 x 2 x 0,35	14.3	163.7	272
0970 032	25 x 2 x 0,35	14.6	170.4	282
0970 033	30 x 2 x 0,35	15.8	204.0	329
0970 034	31 x 2 x 0,35	16.0	210.7	339
0970 035	33 x 2 x 0,35	16.4	224.2	357
0970 036	37 x 2 x 0,35	17.3	251.0	395
0970 037	40 x 2 x 0,35	17.9	271.2	422
0970 038	44 x 2 x 0,35	18.9	298.1	469
0970 039	48 x 2 x 0,35	19.6	325.0	506
0970 040	50 x 2 x 0,35	20.0	338.4	525
0970 041	52 x 2 x 0,35	20.3	351.8	543
0970 042	56 x 2 x 0,35	21.0	378.7	580
0970 008	2 x 2 x 0,5	6.6	21.6	52
0970 043	3 x 2 x 0,5	7.0	31.2	61
0970 009	4 x 2 x 0,5	7.7	40.8	75
0970 017	5 x 2 x 0,5	8.4	50.4	89
0970 014	6 x 2 x 0,5	9.6	60.0	113
0970 044	7 x 2 x 0,5	9.6	69.6	125
0970 012	8 x 2 x 0,5	10.2	79.2	140
0970 013	10 x 2 x 0,5	11.8	98.4	176
0970 010	12 x 2 x 0,5	12.4	117.6	202
0970 045	14 x 2 x 0,5	13.2	136.8	230
0970 046	16 x 2 x 0,5	14.2	156.0	265

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0970 047	18 x 2 x 0,5	14.9	175.2	292
0970 016	20 x 2 x 0,5	15.6	194.4	320
0970 011	24 x 2 x 0,5	16.9	232.8	374
0970 048	25 x 2 x 0,5	17.2	242.4	388
0970 049	30 x 2 x 0,5	18.9	290.4	465
0970 050	31 x 2 x 0,5	19.1	300.0	478
0970 051	33 x 2 x 0,5	19.7	319.2	505
0970 052	37 x 2 x 0,5	20.7	357.6	559
0970 053	40 x 2 x 0,5	21.4	386.4	598
0970 054	44 x 2 x 0,5	22.5	424.8	662
0970 055	48 x 2 x 0,5	23.4	463.2	715
0970 056	50 x 2 x 0,5	23.9	482.4	740
0970 057	52 x 2 x 0,5	24.3	501.6	767
0970 058	56 x 2 x 0,5	25.1	540.0	819
0970 059	2 x 2 x 0,75	7.2	33.6	69
0970 060	3 x 2 x 0,75	7.6	48.0	78
0970 061	4 x 2 x 0,75	8.4	62.4	97
0970 062	5 x 2 x 0,75	9.7	76.8	126
0970 063	7 x 2 x 0,75	10.5	105.6	162
0970 007	10 x 2 x 0,75	13.0	148.8	228
0970 064	12 x 2 x 0,75	13.6	177.6	263
0970 065	14 x 2 x 0,75	14.7	206.4	307
0970 066	16 x 2 x 0,75	15.6	235.2	345
0970 067	24 x 2 x 0,75	18.8	350.4	500
0970 068	27 x 2 x 0,75	19.8	393.6	555
0970 069	30 x 2 x 0,75	20.8	436.8	610
0970 070	33 x 2 x 0,75	21.7	480.0	663
0970 071	37 x 2 x 0,75	23.0	537.6	746
0970 003	2 x 2 x 1,0	7.8	43.2	81
0970 072	3 x 2 x 1,0	8.3	62.4	95
0970 004	4 x 2 x 1,0	9.1	81.6	119
0970 005	5 x 2 x 1,0	10.5	100.8	154
0970 073	7 x 2 x 1,0	11.4	139.2	201
0970 074	10 x 2 x 1,0	14.3	196.8	290
0970 015	12 x 2 x 1,0	15.0	235.2	336

## TECHNOKONTROL YnKSLYekw-P

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0970 075	14 x 2 x 1,0	16.0	273.6	384
0970 006	16 x 2 x 1,0	17.0	312.0	431
0970 076	24 x 2 x 1,0	20.5	465.6	629
0970 077	27 x 2 x 1,0	21.6	523.2	699
0970 078	30 x 2 x 1,0	22.9	580.8	781
0970 079	33 x 2 x 1,0	23.9	638.4	848
0970 080	37 x 2 x 1,0	25.2	715.2	941
0970 001	2 x 2 x 1,5	9.1	64.8	107
0970 081	3 x 2 x 1,5	10.0	93.6	142
0970 082	4 x 2 x 1,5	11.0	122.4	177
0970 083	5 x 2 x 1,5	12.4	151.2	220
0970 084	7 x 2 x 1,5	13.5	208.8	287
0970 085	10 x 2 x 1,5	16.7	295.2	404

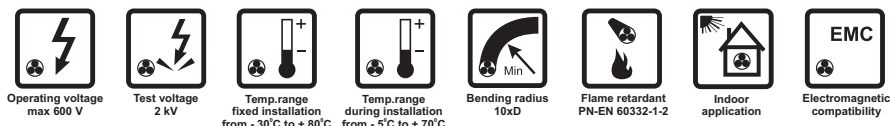
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0970 086	12 x 2 x 1,5	17.5	352.8	471
0970 087	14 x 2 x 1,5	18.9	410.4	549
0970 088	16 x 2 x 1,5	20.1	468.0	619
0970 089	24 x 2 x 1,5	24.3	698.4	900
0970 090	2 x 2 x 2,5	10.9	103.2	162
0970 091	3 x 2 x 2,5	11.8	151.2	207
0970 092	4 x 2 x 2,5	13.0	199.2	261
0970 093	5 x 2 x 2,5	14.6	247.2	324
0970 094	7 x 2 x 2,5	15.9	343.2	428
0970 095	10 x 2 x 2,5	19.6	487.2	603
0970 096	12 x 2 x 2,5	20.6	583.2	706
0970 097	14 x 2 x 2,5	22.1	679.2	811
0970 098	16 x 2 x 2,5	23.6	775.2	925

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## RD-Y(St)Y Bd

### UNIT TYPE CONTROL CABLES FOR POWER STATIONS



### APPLICATIONS

RD-Y(St)Y Bd are unit type control cables intended for analogue or digital data transmission up to 10 kHz.

Pair lay lengths are designed to ensure minimum near-end cross-talks in units.

An electrostatic shield protects the cables against interference by external electric fields.

The cables are suitable for indoor installations connecting fixed and movable equipment.

The cables are also suitable for Maxi-Termi-Point jointing technique.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), regular construction 7 wires,
- PVC insulation,
- insulated conductors twisted into pairs, star-quad assembly in the case of two-pair cable, colour of insulated conductors:

pair number	"a" wire	"b" wire
1	blue	red
2	grey	yellow
3	green	brown
4	white	black

- four pairs stranded into a unit and bound up with a polypropylene binder marked with unit number,
- units laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section the same as conductor,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**RD-Y(St)Yv Bd** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**RD-Y(St)YY Bd** - cables with double PVC sheath, suitable for outdoor installation and direct earth burial.

**RD-H(St)H Bd** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## RD-Y(St)Y Bd

### CHARACTERISTICS

Operating voltage, peak value	600 V	Operating temperature range	
Voltage test		for fixed installation	from - 30 to + 80°C
conductor/conductor	2.0 kV rms	for movable installation	from - 5 to + 70°C
conductor/screen	2.0 kV rms	Minimum bending radius	10 x cable diameter
DC loop resistance at 20°C, maximum		Cable combustibility	flame retardant
0.50 mm <sup>2</sup> conductor	73.6 Ω/km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
1.0 mm <sup>2</sup> conductor	36.8 Ω/km	Reference standards	DIN VDE 0815
Insulation resistance, minimum	100 MΩ·km		
Current-carrying capacity limit			
0.50 mm <sup>2</sup> conductor	6 A		
1.0 mm <sup>2</sup> conductor	12 A		
Mutual capacitance at 800 Hz, maximum	100 nF/km*)		
Near-end cross-talk at 10 kHz, minimum	60 dB/km		
Characteristic impedance, nominal			
at 1 kHz	370 Ω		
at 10 kHz	130 Ω		
Attenuation loss, nominal			
at 1 kHz	1.2 dB/km		
at 10 kHz	3.0 dB/km		

\*) this value can be higher by 20 % in four or less pair cable

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0218 002	2 x 2 x 0,5	6.4	24.0	64
0218 004	4 x 2 x 0,5	8.8	43.2	100
0218 007	8 x 2 x 0,5	11.4	82.0	180
0218 009	12 x 2 x 0,5	13.4	120.0	250
0218 010	16 x 2 x 0,5	15.6	158.0	310
0218 012	24 x 2 x 0,5	19.0	235.0	450
0218 014	32 x 2 x 0,5	21.0	312.0	560
0218 018	48 x 2 x 0,5	34.0	466.0	810

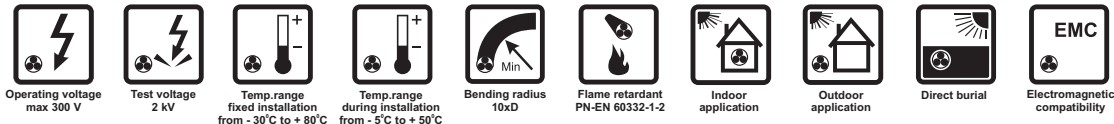
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0218 022	2 x 2 x 1,0	7.3	48.8	93
0218 021	4 x 2 x 1,0	10.8	86.4	163
0218 020	8 x 2 x 1,0	16.6	163.0	308
0218 025	12 x 2 x 1,0	20.2	244.0	451
0218 023	16 x 2 x 1,0	20.5	322.0	558
0218 030	24 x 2 x 1,0	24.6	493.0	840

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## RE-2Y(St)Yv

### DATA TRANSMISSION CABLE



### APPLICATIONS

**RE-2Y(St)Yv** are multipair, overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

High digital data transmission performance is achieved by polyethylene insulation and small capacitance of cable circuits.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- polyethylene (PE) insulation - identification colour code:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs and an orange communication conductor laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- enhanced PVC cable sheath, black RAL 9005 or blue RAL 5015 (for intrinsically safe circuits).

### AVAILABLE UPON REQUEST

**RE-2Y(St)Yv-O** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

## RE-2Y(St)Yv

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.3
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	28.4
Mutual capacitance at 1 kHz, approximate	nF/km	60	65	75

Operating voltage, peak value	300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	2.0 kV rms	for movable installation	from - 5 to + 50°C
Insulation resistance, minimum	5 GΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-7

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0575 006	1 x 2 x 0,5	6.4	19.2	58
0575 007	2 x 2 x 0,5	8.6	28.8	88
0575 008	4 x 2 x 0,5	9.7	48.0	114
0575 019	6 x 2 x 0,5	11.3	67.2	147
0575 027	8 x 2 x 0,5	11.9	86.4	174
0575 040	10 x 2 x 0,5	13.3	105.6	207
0575 009	12 x 2 x 0,5	13.9	124.8	233
0575 041	26 x 2 x 0,5	18.9	259.2	425
0575 042	20 x 2 x 0,5	17.0	201.6	344
0575 043	24 x 2 x 0,5	18.3	240.0	398
0575 005	1 x 2 x 0,75	7.0	24.0	69
0575 011	2 x 2 x 0,75	9.6	38.4	111
0575 012	4 x 2 x 0,75	10.9	67.2	145
0575 004	6 x 2 x 0,75	12.7	96.0	192
0575 013	8 x 2 x 0,75	13.5	124.8	232
0575 044	10 x 2 x 0,75	15.2	153.6	278

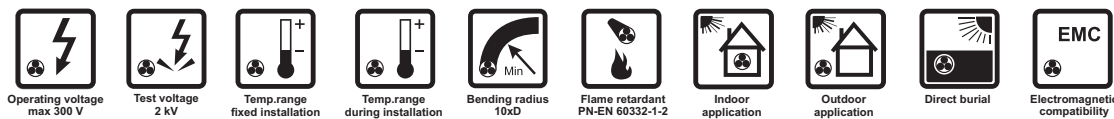
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0575 014	12 x 2 x 0,75	15.8	182.4	315
0575 003	16 x 2 x 0,75	17.7	240.0	397
0575 002	20 x 2 x 0,75	19.4	297.6	477
0575 022	24 x 2 x 0,75	21.0	355.2	557
0575 017	1 x 2 x 1,3	8.0	34.6	90
0575 015	2 x 2 x 1,3	11.3	59.5	148
0575 031	3 x 2 x 1,3	11.9	84.5	173
0575 016	4 x 2 x 1,3	13.0	109.4	211
0575 026	6 x 2 x 1,3	15.3	159.4	286
0575 023	8 x 2 x 1,3	16.3	209.3	353
0575 025	10 x 2 x 1,3	18.4	259.2	427
0575 001	12 x 2 x 1,3	19.2	309.1	490
0575 029	16 x 2 x 1,3	21.9	409.0	635
0575 035	20 x 2 x 1,3	24.0	508.8	769
0575 018	24 x 2 x 1,3	26.2	608.6	913

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## RE-2Y(St)Yv PIMF

### DATA TRANSMISSION CABLE



### APPLICATIONS

**RE-2Y(St)Yv PIMF** are multipair, pair and overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

High digital data transmission performance is achieved by polyethylene insulation and small capacitance of cable circuits.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- polyethylene (PE) insulation - identification colour code:  
"a" wire – black insulation and white pair number printed on it,  
"b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- shielded pairs and an orange communication conductor laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- enhanced PVC cable sheath, black RAL 9005 or blue RAL 5015 (for intrinsically safe circuits).

### AVAILABLE UPON REQUEST

**RE-2Y(St)Yv-O PIMF** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

## RE-2Y(St)Yv PIMF

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>1.3</b>
DC loop resistance at 20°C, maximum	Ω/km	78	28.4
Mutual capacitance at 1 kHz, approximate	nF/km	75	100

Operating voltage, peak value	300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	2.0 kV rms	for movable installation	from - 5 to + 50°C
Insulation resistance, minimum	5 GΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-7

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1165 003	2 x 2 x 0,5	9.1	34.2	105
1165 014	4 x 2 x 0,5	10.4	58.8	137
1165 001	6 x 2 x 0,5	12.1	83.3	181
1165 010	8 x 2 x 0,5	12.8	107.9	218
1165 021	10 x 2 x 0,5	14.3	132.5	260
1165 002	12 x 2 x 0,5	14.9	157.1	296
1165 015	16 x 2 x 0,5	16.7	206.2	373
1165 022	20 x 2 x 0,5	18.3	255.4	459
1165 023	24 x 2 x 0,5	19.7	304.5	535

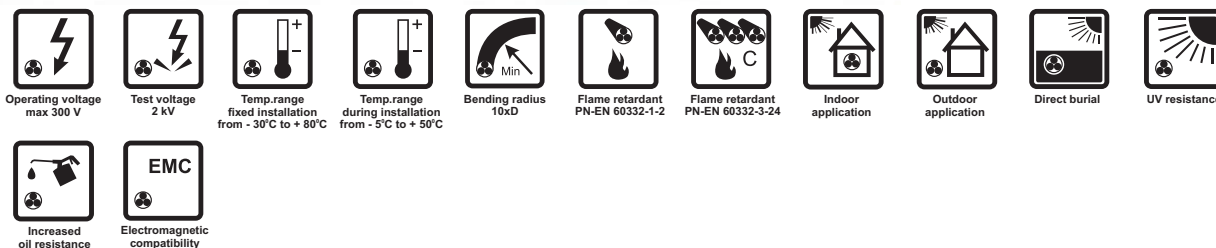
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1165 004	2 x 2 x 1,3	11.8	64.9	166
1165 008	4 x 2 x 1,3	13.6	120.2	236
1165 016	6 x 2 x 1,3	16.1	175.5	324
1165 017	8 x 2 x 1,3	17.1	230.8	401
1165 018	10 x 2 x 1,3	19.4	286.1	487
1165 019	12 x 2 x 1,3	20.2	341.4	563
1165 012	16 x 2 x 1,3	23.1	452.0	732
1165 020	20 x 2 x 1,3	25.6	562.6	911
1165 024	24 x 2 x 1,3	27.7	673.2	1070

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## RE-2Y(St)Yv-fl

### DATA TRANSMISSION CABLE



### APPLICATIONS

**RE-2Y(St)Yv-fl** are multipair, overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

High digital data transmission performance is achieved by polyethylene insulation and small capacitance of cable circuits.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- polyethylene (PE) insulation - identification colour code:  
"a" wire – black insulation and white pair number printed on it,  
"b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs and an orange communication conductor laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- enhanced, oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005 or blue RAL 5015 (for intrinsically safe circuits).

## RE-2Y(St)Yv-fl

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.3
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	28.4
Mutual capacitance at 1 kHz, approximate	nF/km	60	65	75

Operating voltage, peak value	300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	2.0 kV rms	for movable installation	from - 5 to + 50°C
Insulation resistance, minimum	5 GΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Oil resistance	PN-EN 60811-404
		Reference standards	PN-EN 50288-7

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1411 015	1 x 2 x 0,5	6.4	19.2	61
1411 016	2 x 2 x 0,5	8.6	28.8	92
1411 005	4 x 2 x 0,5	9.7	48.0	119
1411 006	6 x 2 x 0,5	11.3	67.2	153
1411 017	8 x 2 x 0,5	11.9	86.4	180
1411 018	10 x 2 x 0,5	13.3	105.6	214
1411 019	12 x 2 x 0,5	13.9	124.8	240
1411 020	26 x 2 x 0,5	18.9	259.2	436
1411 021	20 x 2 x 0,5	17.0	201.6	354
1411 022	24 x 2 x 0,5	18.3	240.0	409
1411 007	1 x 2 x 0,75	7.0	24.0	72
1411 023	2 x 2 x 0,75	9.6	38.4	115
1411 004	4 x 2 x 0,75	10.9	67.2	151
1411 024	6 x 2 x 0,75	12.7	96.0	199
1411 008	8 x 2 x 0,75	13.5	124.8	240
1411 025	10 x 2 x 0,75	15.2	153.6	287

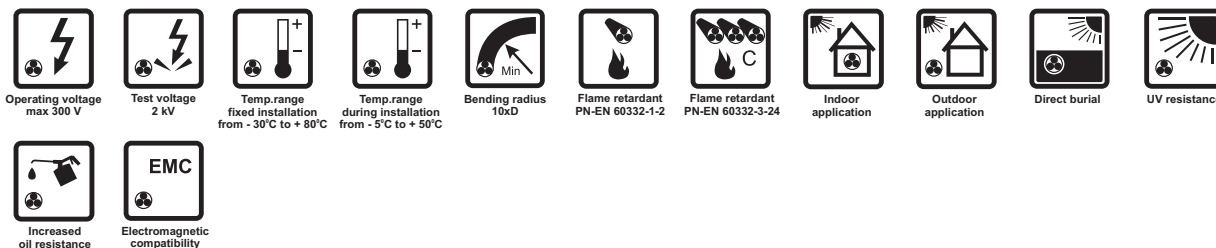
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1411 026	12 x 2 x 0,75	15.8	182.4	324
1411 009	16 x 2 x 0,75	17.7	240.0	407
1411 027	20 x 2 x 0,75	19.4	297.6	488
1411 028	24 x 2 x 0,75	21.0	355.2	569
1411 010	1 x 2 x 1,3	8.0	34.6	94
1411 003	2 x 2 x 1,3	11.3	59.5	154
1411 029	3 x 2 x 1,3	11.9	84.5	180
1411 011	4 x 2 x 1,3	13.0	109.4	218
1411 012	6 x 2 x 1,3	15.3	159.4	295
1411 013	8 x 2 x 1,3	16.3	209.3	362
1411 030	10 x 2 x 1,3	18.4	259.2	438
1411 031	12 x 2 x 1,3	19.2	309.1	501
1411 014	16 x 2 x 1,3	21.9	409.0	648
1411 032	20 x 2 x 1,3	24.0	508.8	783
1411 033	24 x 2 x 1,3	26.2	608.6	929

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## RE-2Y(St)Yv-fl PIMF

### DATA TRANSMISSION CABLE



### APPLICATIONS

**RE-2Y(St)Yv-fl PIMF** are multipair, pair and overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

High digital data transmission performance is achieved by polyethylene insulation and small capacitance of cable circuits.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- polyethylene (PE) insulation - identification colour code:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- shielded pairs and an orange communication conductor laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- enhanced, oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, black RAL 9005 or blue RAL 5015 (for intrinsically safe circuits).

## RE-2Y(St)Yv-fl PIMF

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.3
DC loop resistance at 20°C, maximum	Ω/km	78	52.0	28.4
Mutual capacitance at 1 kHz, approximate	nF/km	75	85	100

Operating voltage peak value	300 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	2.0 kV rms	for movable installation	from - 5 to + 50°C
Insulation resistance, minimum	5 GΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Oil resistance	PN-EN 60811-404
		Reference standards	PN-EN 50288-7

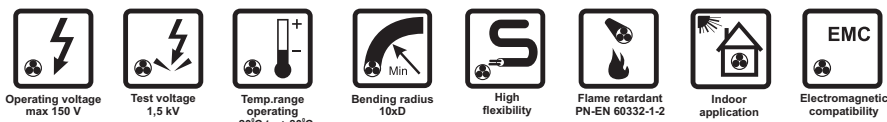
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1412 020	1 x 2 x 0,5	6.7	21.9	73
1412 010	2 x 2 x 0,5	9.1	34.2	109
1412 008	4 x 2 x 0,5	10.4	58.8	142
1412 012	6 x 2 x 0,5	12.1	83.3	187
1412 021	8 x 2 x 0,5	12.8	107.9	225
1412 011	10 x 2 x 0,5	14.3	132.5	268
1412 009	12 x 2 x 0,5	14.9	157.1	304
1412 022	26 x 2 x 0,5	20.4	329.1	658
1412 023	20 x 2 x 0,5	18.3	255.4	469
1412 024	24 x 2 x 0,5	19.7	304.5	546
1412 025	1 x 2 x 0,75	7.3	26.7	84
1412 015	2 x 2 x 0,75	10.1	43.8	129
1412 026	4 x 2 x 0,75	11.5	78.0	176
1412 007	6 x 2 x 0,75	13.5	112.1	235
1412 003	8 x 2 x 0,75	14.3	146.3	285
1412 016	10 x 2 x 0,75	16.1	180.5	344

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1412 001	12 x 2 x 0,75	16.8	214.7	393
1412 002	16 x 2 x 0,75	18.9	283.0	498
1412 027	20 x 2 x 0,75	20.7	351.4	611
1412 028	24 x 2 x 0,75	22.6	419.7	726
1412 029	1 x 2 x 1,3	8.3	37.2	107
1412 017	2 x 2 x 1,3	11.8	64.9	172
1412 030	3 x 2 x 1,3	12.5	92.5	200
1412 031	4 x 2 x 1,3	13.6	120.2	244
1412 032	6 x 2 x 1,3	16.1	175.5	333
1412 033	8 x 2 x 1,3	17.1	230.8	410
1412 034	10 x 2 x 1,3	19.4	286.1	498
1412 035	12 x 2 x 1,3	20.2	341.4	574
1412 036	16 x 2 x 1,3	23.1	452.0	746
1412 037	20 x 2 x 1,3	25.6	562.6	927
1412 018	24 x 2 x 1,3	27.7	673.2	1087

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## Li2Y(St)Y 1x2x16 AWG (equivalent: BELDEN 8719)

### INSTRUMENTATION CABLE



### APPLICATIONS

**Li2Y(St)Y 1x2x16 AWG** is a cable intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

An electrostatic shield protects the cable against interference by external electric fields.

The cable is suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires 16 AWG (19x0.287 mm),
- polyethylene (PE) insulation - identification colour code: black, natural,
- two insulated conductors twisted into a pair which is a cable core,
- shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 18 AWG (19x0.254 mm),
- PVC cable sheath, grey RAL 7037, other colours also available.

### CHARACTERISTICS

Operating voltage	150 V	Operating temperature range:	from -20 to +80 °C
Voltage test	1500 V rms	Minimum bending radius	10 x cable diameter
Mutual capacitance at 1 kHz, approximate	75 nF/km	Cable combustibility	flame retardant
Inductance, approximate	0.6 mH/km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
DC loop resistance at 20°C, maximum	29.6 Ω/km	Reference standards	DT
Insulation resistance, minimum	5 GΩ·km		

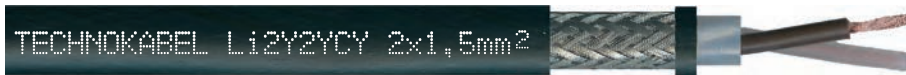
Product No.	Number of pairs (x 2) x dimension of conductor	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	AWG	mm	kg/km	kg/km
0045 009	1 x 2 x 16	8.0	34.6	78

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## Li2Y2Y CY 2x1,5 mm<sup>2</sup>

(equivalent: SIEMENS L-2Y2YCY product number V45551-F21-B5)

### DATA TRANSMISSION CABLE



Operating voltage  
max 150 V



Test voltage  
1 kV



Temp. range  
operating  
-40°C to +70°C



Bending radius  
10xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Outdoor  
application



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

Li2Y2YCY 2x1,5 mm<sup>2</sup> cable is intended for industrial computer systems.

Low capacitance between conductors is a distinctive feature of the cable.

For proper transmission of digital and analogue signals the cable is protected by a specially designed and highly effective collective shield against external electromagnetic interferences.

The cable is suitable for indoor and outdoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires, cross-section 1.5 mm<sup>2</sup>,
- polyethylene (PE) insulation - identification colour code: natural, brown,
- two insulated conductors twisted into a pair which is a cable core,
- cable core wrapped in polyester tape,
- inner PE sheath,
- tinned copper wire braid shield of coverage bigger than 80%,
- cold resistant PVC cable sheath, coloured according to customer's requirement.

### CHARACTERISTICS

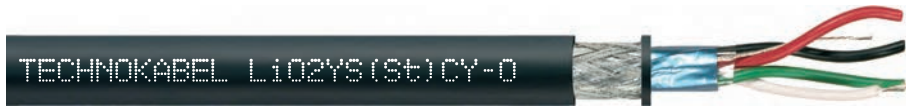
Operating voltage	150 V	Operating temperature range:	from - 40 to + 70°C
Voltage test	1000 V rms	Minimum bending radius	10 x cable diameter
Insulation resistance, minimum	10 GΩ·km	Cable combustibility	flame retardant
DC loop resistance at 20°C, maximum	26.6 Ω/km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Mutual capacitance at 1 kHz	≤ 52 nF/km		
Inductance, approximate	750 μH/km		

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0048 001	2x1,5	12.5	90.9	194

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## LI02YS(St)CY-O nx2x0,22c mm<sup>2</sup> 100 Ω

### DATA TRANSMISSION CABLES



### APPLICATIONS

LI02YS(St)CY-O nx2x0,22c mm<sup>2</sup> cables are intended for industrial computer systems with RS-232 and RS-422 interfaces.

Low capacitance between conductors is a distinctive feature of the cables.

For proper transmission of digital and analogue signals the cable is protected by a specially designed and highly effective collective shield against external electromagnetic interferences.

The cables are designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires (7x0.2 mm),
- foam-skin polyethylene insulation - special system of insulation colours in pairs,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire under tinned copper wire braid shield of coverage bigger than 65%,
- oil resistant PVC cable sheath, black RAL 9005, other colours also available.

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Attenuation loss, [dB/100m] max - at frequency [MHz]:	
Mutual capacitance at 1 kHz	41 ± 3 nF/km	1	2.5
DC loop resistance at 20°C, maximum	184 Ω/km	10	6.5
Insulation resistance, minimum	200 MΩ·km	50	12.5
Operating voltage	150 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	500 V rms	for movable installation	from - 5 to + 70°C
		Minimum bending radius	15 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0079 002	2 x 2 x 0,22c	7.3	24.9	58.7

2 x 2 x 0,22c - equivalent BELDEN 8102

Other pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## BUS O2YS(St)CY 1x2x1,0/2,6 mm

### PROFIBUS PA SYMMETRICAL CABLE



Operating voltage  
max 150 V



Test voltage  
700 V



Temp. range  
fixed installation  
from -30°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



EMC  
Electromagnetic  
compatibility



Increased  
oil resistance

### APPLICATIONS

**BUS O2YS(St)CY 1x2x1,0/2,6 mm** is cable intended for industrial PROFIBUS PA control systems.

For proper transmission of digital and analogue signals the cable is protected by a specially designed and highly effective collective shield against external electromagnetic interferences.

Cable outer sheath is oil-resistant.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire round conductors of diameter 1.0 mm,
- foam-skin polyethylene insulation - identification colour code: blue and orange,
- insulated conductors twisted into a pair,
- collective shield incorporating an aluminium-polyester tape under a tinned copper wire braid,
- oil resistant PVC sheath, blue RAL 5015, other colours also available.

### AVAILABLE UPON REQUEST

**BUS O2YS(St)CYv 1x2x1,0/2,6 mm** - cable of enhanced and oil resistant PVC sheath, suitable for outdoor installations and direct earth burial.

**BUS O2YS(St)CY2Y 1x2x1,0/2,6 mm** - cable with additional polyethylene (PE) sheath, suitable for outdoor installations and direct earth burial.

### CHARACTERISTICS

Characteristic impedance	100 ± 20 Ω	Transfer impedance at 30 MHz, maximum	50 mΩ/m
Mutual capacitance at 1 kHz, approximate	45 nF/km	DC loop resistance at 20°C, maximum	44 Ω/km
Insulation resistance, minimum	5 GΩ·km	DC shield resistance at 20°C, maximum	9.5 Ω/km
Operating voltage	100 V	Voltage test	700 V rms
Attenuation loss, maximum at 38.4 MHz	3 dB/km	Operating temperature range	from - 30 to + 70 °C
Attenuation loss, [dB/100m] max - at frequency [MHz]:		Minimum bending radius	10 x cable diameter
1	1.2	Cable combustibility	flame retardant
4	2.2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
10	3.2	Oil resistance	PN-EN 60811-404
16	4.2	Reference standards	IEC 61158-2

Product No.	Cable type	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0182 002	O2YS(St)CY	1x2x1,0/2,6	8.0	31	76.5

Product No.	Cable type	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0182 004	O2YS(St)CYv	1x2x1,0/2,6	9.6	31	109

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## BUS O2YS(St)CY 1x2x0,64/2,6 mm

### PROFIBUS DP SYMMETRICAL CABLE



Operating voltage  
max 150 V



Test voltage  
700 V



Temp. range  
fixed installation  
from -30°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Electromagnetic  
compatibility

### APPLICATIONS

**BUS O2YS(St)CY 1x2x0,64/2,6 mm** is cable intended for industrial PROFIBUS DP control systems.

For proper transmission of digital and analogue signals the cable is protected by a specially designed and highly effective collective shield against external electromagnetic interferences.

Cable outer sheath is oil-resistant.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- bare annealed copper single wire conductors of diameter 0.64 mm (22 AWG),
- foam-skin polyethylene insulation - identification colour code: red and green,
- insulated conductors twisted into a pair,
- collective shield incorporating an aluminium-polyester tape under a tinned copper wire braid,
- violet PVC cable sheath.

### AVAILABLE UPON REQUEST

**BUS O2YS(St)CYv 1x2x0,64/2,6 mm** - cable of enhanced and oil resistant PVC sheath, suitable for outdoor installations and direct earth burial.

**BUS O2YS(St)CY2Y 1x2x0,64/2,6 mm** - cable with additional polyethylene (PE) sheath, suitable for outdoor installations and direct earth burial.

### CHARACTERISTICS

Characteristic impedance	150 ± 15 Ω	Transfer impedance at 30 MHz, maximum	50 mΩ/m
Mutual capacitance at 1 kHz, approximate	30 nF/km	DC loop resistance at 20°C, maximum	110 Ω/km
Insulation resistance, minimum	5 GΩ·km	DC shield resistance at 20°C, maximum	9.7 Ω/km
Operating voltage	100 V	Voltage test	700 V rms
Attenuation loss, maximum at 38.4 MHz	4 dB/km	Operating temperature range	from - 30 to + 70 °C
Attenuation loss, [dB/100m] max - at frequency [MHz]:		Minimum bending radius	10 x cable diameter
1	1.2	Cable combustibility	flame retardant
4	2.2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
10	3.2	Reference standards	DIN 19245 T3, EN 50170
16	4.2		

Product No.	Cable type	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0182 001	O2YS(St)CY	1x2x0,64/2,6	8.0	20.5	67
0182 003	O2YS(St)CYv	1x2x0,64/2,6	10.0	20.9	108

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## FFBUS 105°C 1x2x18 AWG FOUNDATION FIELDBUS CABLE



### APPLICATIONS

FFBUS 105°C 1x2x18 AWG cable is intended for FOUNDATION fieldbus systems.

For proper transmission of digital and analogue signals the cable is protected by a specially designed and highly effective collective shield against external electromagnetic interferences.

The cable is suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- 18 AWG flexible multiwire conductors, stranded of annealed tin-plated copper wires (7x0.4 mm),
- foam-skin polyethylene insulation - identification colour code: blue, brown,
- insulated conductors twisted into pairs,
- collective shield, incorporating an aluminium-polyester tape and a stranded annealed tinned copper drain wire under a tinned copper wire braid shield of coverage bigger than 60%,
- heat resistant PVC cable sheath, colours on request.

### CHARACTERISTICS

Characteristic impedance	100 ± 20 Ω	DC loop resistance at 20°C, maximum	19.6 Ω/km
Mutual capacitance at 1 kHz, appr.	50 nF/km	Operating temperature range	from -40 to +105 °C
Inductance, approximate	0.5 mH/km	Minimum bending radius	12 x cable diameter
Attenuation loss, max - at frequency 39 kHz	3 dB/km	Cable combustibility	flame retardant
Insulation resistance, minimum	150 MΩ·km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Operating voltage	100 V	Reference standards	IEC 61158-2
Voltage test	1500 V rms		

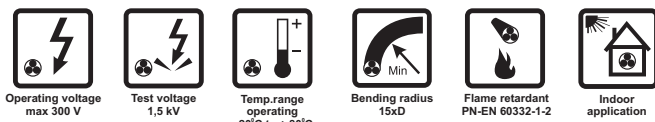
Product No.	Number of pairs (x 2) x conductor size	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	AWG	mm	kg/km	kg/km
0901 003	1 x 2 x 18c	7.8	40	68

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## LON BUS 1x2x16 AWG (equivalent: BELDEN 8471)

### LONWORKS CABLE



### APPLICATIONS

LON BUS 1x2x16 AWG cable is intended for wiring LONWORKS bus in automation systems.

The cable is suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- 16 AWG flexible multiwire conductors, stranded of annealed tin-plated copper wires (19x0.29 mm),
- special PVC insulation - identification colour code: white, black,
- insulated conductors twisted into pairs,
- PVC cable sheath, grey RAL 7037, other colours also available.

### CHARACTERISTICS

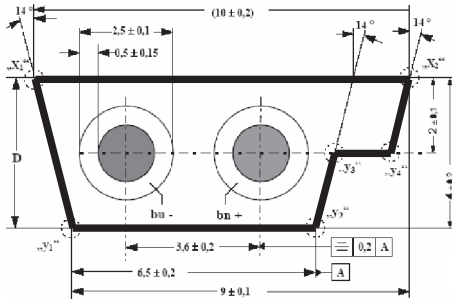
Operating voltage	300 V	Operating temperature range	from - 20 to + 80 °C
Mutual capacitance at 1 kHz, max.	80 nF/km	Minimum bending radius	15 x cable diameter
Insulation resistance, minimum	100 MΩ·km	Cable combustibility	flame retardant
Inductance, approximate	0.6 mH/km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Voltage test	1500 V rms	Reference standards	IEC 61158, PN-EN 50170, DT
DC loop resistance at 20°C, maximum	29.6 Ω/km		

Product No.	Number of pairs (x 2) x conductor size	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	AWG	mm	kg/km	kg/km
0901 001	1 x 2 x 16	6.9	25.8	60

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK C-BUS/A/J 2x1,5 mm<sup>2</sup>

### ASI BUS CABLE (Actuator Sensor Interface)



### APPLICATIONS

TECHNOTRONIK C-BUS/A/J 2x1.5 mm<sup>2</sup> cable is intended for industrial AS-I bus control systems.

The cable is applied for connecting a control unit with sensors and actuators to provide power supply and data transmission.

The cable is suitable for indoor and outdoor installations.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, meeting requirements of class 6 per PN-EN 60228, cross-section 1.5 mm<sup>2</sup>,
- wire insulation made of thermoplastic elastomer (TPE-S),
- insulated conductors arranged in parallel along the cable at constant distance between them,
- identification colour code: brown, blue,
- yellow cable sheath made of thermoplastic elastomer (TPE-S).

### CHARACTERISTICS

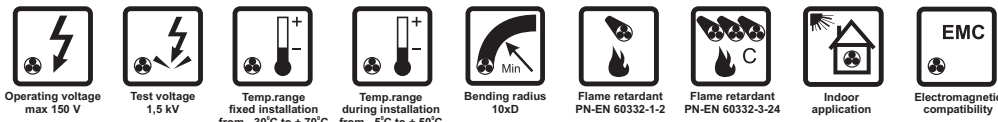
Characteristic impedance	120 ± 20 Ω	Operating temperature range	from - 60 to + 125 °C
Mutual capacitance at 1 kHz	45 ± 5 nF/km	Minimum bending radius for fixed installation	3 x thickness or 4x width
Inductance, approximate	0.64 mH/km	for movable installation	6 x thickness or 10x width
DC conductor resistance at 20°C, maximum	13.7 Ω/km	Cable combustibility	flame retardant
Insulation resistance, minimum	20 MΩ·km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Operating voltage	48 V DC	Reference standards	EN 50295
Voltage test	1500 V rms		

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diamensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0471 001	2x1,5	4.0x10.0	28.8	74.5

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**EIB BUS 2x2x0,8 mm**  
**EIB BUS-H 2x2x0,8 mm**

**EIB CABLE (European Installation Bus)**



**APPLICATIONS**

EIB BUS and EIB BUS-H cables are intended for connecting control and signalling equipment operating in intelligent buildings according to European Installation Bus (EIB) systems.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

Cables pass combustibility test according to EN 60332-3 standard.

EIB BUS-H cable is applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor installations.

**CONSTRUCTION of EIB BUS 2x2x0.8 mm**

- bare annealed copper single wire round conductors of diameter 0.8 mm,
- PVC insulation - white, yellow, red and black,
- insulated conductors twisted into a quad,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire,
- PVC cable sheath (oxygen index bigger than 29%), green RAL 6018, other colours also available.

**CONSTRUCTION of EIB BUS-H 2x2x0.8 mm**

- bare annealed copper single wire round conductors of diameter 0.8 mm,
- PE insulation - white, yellow, red and black,
- insulated conductors twisted into a quad,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire,
- cable sheath of halogen free compound, green RAL 6018, other colours also available.

**AVAILABLE UPON REQUEST**

**EIB BUS 3x2x0.8 mm** - cable with three pairs.

**EIB-CY BUS** - tinned copper wire braid shielded cable.

**EIB BUS 2x2x0,8 mm**  
**EIB BUS-H 2x2x0,8 mm**

**CHARACTERISTICS**

Characteristic impedance (EIB BUS-H)	100 ± 20 Ω	Operating temperature range: during operation	from - 30 to + 70 °C
Mutual capacitance at 1 kHz: EIB BUS	100 ± 5 nF/km	during installation	from - 5 to + 50 °C
EIB BUS-H	47 ± 5 nF/km	Minimum bending radius	10 x cable diameter
Insulation resistance, minimum	200 MΩ·km	Cable combustibility	flame retardant
Operating voltage	150 V	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (kat. C)
Voltage test	1500 V rms	Reference standards:	WT-TK-4
DC loop resistance at 20°C, maximum	75 Ω/km		

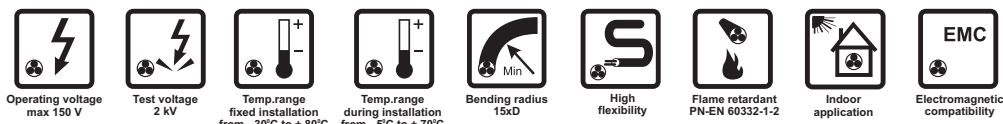
Product No.	Product symbol	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0626 001	EIB BUS	2 x 2 x 0,8	6.1	20.5	53

Product No.	Product symbol	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
1269 001	EIB BUS-H	2 x 2 x 0,8	6.2	20.5	48

Other diameters and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## LiY(St)Y-P nx(2x0,5c) (equivalent: NOMAK)

### INSTRUMENTATION CABLES



### APPLICATIONS

LiY(St)Y-P nx(2x0,5c) are multipair, overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor installations connecting fixed and movable equipment.

The cable is also suitable for Maxi-Termi-Point jointing technique.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires (7x0.3 mm), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation,
- insulated conductors twisted into pairs, identification colour code:
  - "a" wire – orange insulation and black pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.5 mm<sup>2</sup> (7x0.3 mm),
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

LiH(St)H-P nx(2x0,5c) (equivalent: NOMAK-HF) - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

LiY(St)Yu-P nx(2x0,5c) - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

## LiY(St)Y-P nx(2x0,5c)

(equivalent: NOMAK)

### CHARACTERISTICS

Characteristic impedance at 10 MHz	100 ± 10 Ω	Attenuation loss, [dB/100m] max - at frequency [kHz]:		
Mutual capacitance at 800 Hz, appr.	100 nF/km*		9.6	0.3
DC loop resistance at 20°C, maximum	81 Ω/km		19.2	0.5
Insulation resistance, minimum	20 MΩ·km		64.0	0.7
Operating voltage	150 V		100.0	0.9
Voltage test	2,0 kV rms	Operating temperature range		
		for fixed installation		from - 30 to + 80°C
		for movable installation		from - 5 to + 70°C
		Minimum bending radius		15 x cable diameter
		Cable combustibility		flame retardant
		Combustibility tests		PN-EN 60332-1-2, IEC 60332-1-2

\*) this value can be higher by 20 % in four or less pair cable

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0092 010	2 x (2 x 0,5c)	6,9	24,0	58
0092 009	4 x (2 x 0,5c)	8,2	43,2	87
0092 012	8 x (2 x 0,5c)	10,5	82,0	153

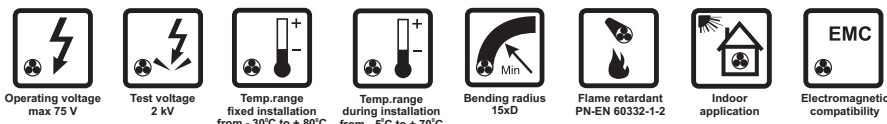
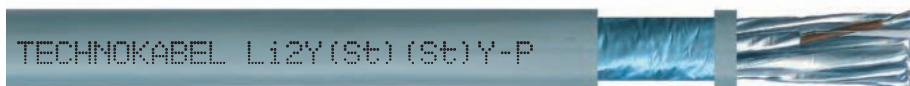
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0092 011	12 x (2 x 0,5c)	12,7	120,0	220
0092 013	24 x (2 x 0,5c)	17,4	235,0	415
0092 014	48 x (2 x 0,5c)	24,3	466,0	810

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## Li2Y(St)(St)Y-P nx(2+1)x0,5c mm<sup>2</sup> (equivalent: JAMAK)

### INSTRUMENTATION CABLES



### APPLICATIONS

Li2Y(St)(St)Y-P nx(2+1)x0,5c mm<sup>2</sup> are multipair, pair and overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

High digital data transmission performance is achieved by polyethylene insulation and small capacitance of cable circuits.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor installations connecting fixed and movable equipment.

The cable is also suitable for Maxi-Termi-Point jointing technique.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires (7x0.3 mm), meeting requirements of class 2 per PN-EN 60228,
- polyethylene (PE) insulation - identification colour code:
  - "a" wire – blue,
  - "b" wire – red,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.5 mm<sup>2</sup> (7x0.3 mm),
- shielded pairs bounded up with a polypropylene binder marked with pair number,
- shielded pairs laid-up in layers,
- overall shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.5 mm<sup>2</sup> (7x0.3 mm),
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**Li2Y(St)(St)Y-P (1) n x (2+1) x 0,5 mm<sup>2</sup>** (equivalent: JAMAK-C) - cables with overall electrostatic shield, incorporating two plastic laminated metal foils and stranded annealed tinned copper drain wire.

**Li2Y(St)(St)H-P n x (2+1) x 0,5 mm<sup>2</sup>** (equivalent: JAMAK-HF) - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Li2Y(St)(St)Yu-P n x (2+1) x 0,5 mm<sup>2</sup>** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**Li2Y(St)(St)Y-P nx(2+1)x0,5c mm<sup>2</sup>**  
(equivalent: JAMAK)

**CHARACTERISTICS**

Characteristic impedance at 10 MHz	70 ± 10 Ω	Attenuation loss, [dB/100m] max - at frequency [kHz]:		
Mutual capacitance at 800 Hz	85 ± 3 nF/km		9.6	0.3
DC loop resistance at 20°C, maximum	81 Ω/km		19.2	0.5
Insulation resistance, minimum	2 GΩ·km		64	0.7
Operating voltage	75 V		100	0.9
Voltage test	2.0 kV rms		200	1.6
			1000	4.5
		Operating temperature range		
		for fixed installation		from - 30 to + 80°C
		for movable installation		from - 5 to + 70°C
		Minimum bending radius		15 x cable diameter
		Cable combustibility		flame retardant
		Combustibility tests		PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0039 011	2 x (2+1) x 0,5	8.0	33.6	78
0039 009	4 x (2+1) x 0,5	9.4	62.4	125
0039 007	8 x (2+1) x 0,5	13.0	120.0	228
0039 012	12 x (2+1) x 0,5	15.1	177.6	315
0039 013	24 x (2+1) x 0,5	21.1	350.4	606
0039 014	48 x (2+1) x 0,5	29.1	696.0	1157

Other pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## EGSF, EGFA

### INSTRUMENTATION CABLES



### APPLICATIONS

**EGSF** and **EGFA** instrumentation cables are intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications, allowing particularly for conditions met in chemical, petrochemical and paper industries.

The cables are protected by an overall electrostatic shield against external electric interferences.

Steel tape armour in **EGFA** cables offers enhanced protection against mechanical damages and rodent attack.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for fixed indoor and outdoor installations.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and offer enhanced resistance to aliphatic hydrocarbons.

### CONSTRUCTION

- bare annealed copper wire conductors,
  - 05** – 0.50 mm<sup>2</sup> (1x0.8 mm),
  - 09** – 0.88 mm<sup>2</sup> (7x0.4 mm)
  - 15** – 1.50 mm<sup>2</sup> (7x0.52 mm),
- heat resistant PVC insulation,
- insulated conductors twisted into:
  - pairs **IP** - colour code: white and red insulation and pair number printed on it,
  - triads **IT** - colour code: white, red and blue insulation and triad number printed on it,
  - quads **IQ** - colour code: white, red, blue and yellow insulation for identification,
- pairs, triads or quads laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup> (7x0.2 mm),
- special PVC cable sheath, blue (RAL 5012), other colours also available,
- steel tape armour for **EGFA** cable,
- special PVC cable covering, blue (RAL 5012), other colours also available.

## EGSF, EGFA

### CHARACTERISTICS

DC loop resistance at 20°C,  
maximum:

0.50 mm <sup>2</sup> conductor	75.0 Ω/km
0.88 mm <sup>2</sup> conductor	42.8 Ω/km
1.50 mm <sup>2</sup> conductor	24.2 Ω/km

Resistance unbalance,  
maximum:

0.50 mm <sup>2</sup> conductor	1.120 Ω/km
0.88 mm <sup>2</sup> conductor	1.070 Ω/km
1.50 mm <sup>2</sup> conductor	0.605 Ω/km

Operating voltage U<sub>o</sub>/U 300/300 V

Voltage test

conductor/conductor	1500 V rms
conductor/screen	1000 V rms

Insulation resistance, minimum 500 MΩ·km

Mutual capacitance, max (this value may be 30%  
higher for one pair or triad):

0.50 mm <sup>2</sup> conductor	145 nF/km
0.88 mm <sup>2</sup> conductor	160 nF/km
1.50 mm <sup>2</sup> conductor	150 nF/km

Operating temperature range  
during operation  
during installation

from - 30 to + 90°C  
from - 5 to + 70°C

Minimum bending radius

15 x cable diameter

Resistance to aliphatic  
hydrocarbons

NF M 87-202 Annex A

Oil resistance

PN-EN 60811-404

Cable combustibility

flame retardant

Combustibility tests

PN-EN 60332-1-2, IEC 60332-1-2

Reference standards

NF M 87-202

Product No.	Cable type	Number of pairs/triads/quads (x 2/3/4) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>	mm	kg/km	kg/km
1421 010	03 IP 05 EGSF	3 x 2 x 0,5	8.4	31.0	84.0
1421 007	07 IP 05 EGSF	7 x 2 x 0,5	10.9	70.0	157.0
1421 008	12 IP 05 EGSF	12 x 2 x 0,5	13.9	118.0	255.0
1421 009	19 IP 05 EGSF	19 x 2 x 0,5	17.1	185.0	388.0
1421 011	27 IP 05 EGSF	27 x 2 x 0,5	19.0	262.0	510.0
1422 004	07 IT 05 EGSF	7 x 3 x 0,5	12.4	103.0	219.0
1422 005	12 IT 05 EGSF	12 x 3 x 0,5	15.9	175.0	366.0
1421 001	01 IP 09 EGSF	1 x 2 x 0,88	6.6	20.0	60.0
1421 002	03 IP 09 EGSF	3 x 2 x 0,88	10.3	53.0	126.0
1421 003	07 IP 09 EGSF	7 x 2 x 0,88	13.7	121.0	252.0
1421 004	12 IP 09 EGSF	12 x 2 x 0,88	17.5	205.0	412.0
1421 005	19 IP 09 EGSF	19 x 2 x 0,88	21.3	324.0	621.0
1421 006	27 IP 09 EGSF	27 x 2 x 0,88	25.1	459.0	864.0
1422 001	01 IT 09 EGSF	1 x 3 x 0,88	7.0	28.0	70.0
1422 002	07 IT 09 EGSF	7 x 3 x 0,88	15.8	180.0	363.0
1422 003	12 IT 09 EGSF	12 x 3 x 0,88	20.0	307.0	595.0
1726 001	01 IQ 09 EGSF	1 x 4 x 0,88	7.5	36.0	85.0

Product No.	Cable type	Number of pairs/triads/quads (x 2/3/4) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>	mm	kg/km	kg/km
0844 009	03 IP 05 EGFA	3 x 2 x 0,5	11.2	31.0	191.0
0844 010	07 IP 05 EGFA	7 x 2 x 0,5	13.9	70.0	300.0
0844 015	12 IP 05 EGFA	12 x 2 x 0,5	17.1	118.0	441.0
0844 016	19 IP 05 EGFA	19 x 2 x 0,5	20.5	185.0	624.0
0844 011	27 IP 05 EGFA	27 x 2 x 0,5	24.0	262.0	810.0
0967 003	07 IT 05 EGFA	7 x 3 x 0,5	15.6	103.0	387.0
0967 004	12 IT 05 EGFA	12 x 3 x 0,5	19.3	175.0	586.0
0844 004	01 IP 09 EGFA	1 x 2 x 0,88	9.4	20.0	146.0
0844 006	03 IP 09 EGFA	3 x 2 x 0,88	13.3	53.0	261.0
0844 001	07 IP 09 EGFA	7 x 2 x 0,88	16.9	121.0	436.0
0844 017	12 IP 09 EGFA	12 x 2 x 0,88	20.9	205.0	653.0
0844 005	19 IP 09 EGFA	19 x 2 x 0,88	25.1	324.0	936.0
0844 003	27 IP 09 EGFA	27 x 2 x 0,88	29.1	459.0	1245.0
0967 005	01 IT 09 EGFA	1 x 3 x 0,88	9.8	28.0	161.0
0967 006	07 IT 09 EGFA	7 x 3 x 0,88	19.0	180.0	573.0
0967 007	12 IT 09 EGFA	12 x 3 x 0,88	23.4	307.0	869.0
0883 001	01 IQ 09 EGFA	1 x 4 x 0,88	10.3	36.0	182.0
0844 012	01 IP 15 EGFA	1 x 2 x 0,88	10.7	28.0	161.0
0844 013	07 IP 15 EGFA	7 x 2 x 0,88	20.6	180.0	573.0
0844 014	12 IP 15 EGFA	12 x 2 x 0,88	25.7	307.0	869.0

Other cross-sections and pair, triad or quad counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## EISF, EIFA

### INSTRUMENTATION CABLES



### APPLICATIONS

**EISF** and **EIFA** instrumentation cables are intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications, allowing particularly for conditions met in chemical, petrochemical and paper industries.

The cables are protected by an overall electrostatic shield against external electric interferences.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

Steel tape armour in **EIFA** cables offers enhanced protection against mechanical damages and rodent attack.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for fixed indoor and outdoor installations.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and offer enhanced resistance to aliphatic hydrocarbons.

### CONSTRUCTION

- bare annealed copper wire conductors,
  - 05** – 0.50 mm<sup>2</sup> (1x0.8 mm),
  - 09** – 0.88 mm<sup>2</sup> (7x0.4 mm)
  - 15** – 1.50 mm<sup>2</sup> (7x0.52 mm),
- heat resistant PVC insulation,
- insulated conductors twisted into:
  - pairs **IP** - colour code insulation: white and red,
  - triads **IT** - colour code insulation: white, red and blue,
- pair/triad electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup> (7x0.2 mm),
- special PVC sheath of shielded pairs/triads, blue (RAL 5012), other colours also available and printed black number of pair or triad,
- shielded and sheathed pairs or triads laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup> (7x0.2 mm), number of drain wires from 1 to 3 depending on the cable core diameter,
- special PVC cable sheath, blue (RAL 5012), other colours also available,
- steel tape armour for **EIFA** cable,
- special PVC cable covering, blue (RAL 5012), other colours also available.

## EISF, EIFA

### CHARACTERISTICS

DC loop resistance at 20°C,  
maximum:

0.50 mm <sup>2</sup> conductor	75.0 Ω/km
0.88 mm <sup>2</sup> conductor	42.8 Ω/km
1.50 mm <sup>2</sup> conductor	24.2 Ω/km

Resistance unbalance,  
maximum:

0.50 mm <sup>2</sup> conductor	1.120 Ω/km
0.88 mm <sup>2</sup> conductor	1.070 Ω/km
1.50 mm <sup>2</sup> conductor	0.605 Ω/km

Operating voltage U<sub>o</sub>/U 300/300 V

Voltage test

conductor/conductor	1500 V rms
conductor/screen	1000 V rms

Insulation resistance, minimum 500 MΩ·km

Mutual capacitance,  
maximum:

0.50 mm <sup>2</sup> conductor	210 nF/km
0.88 mm <sup>2</sup> conductor	230 nF/km
1.50 mm <sup>2</sup> conductor	220 nF/km

Operating temperature range  
during operation  
during installation

from - 30 to + 90°C  
from - 5 to + 70°C

Minimum bending radius

15 x cable diameter

Resistance to aliphatic  
hydrocarbons

NF M 87-202 Annex A

Oil resistance

PN-EN 60811-404

Cable combustibility

flame retardant

Combustibility tests

PN-EN 60332-1-2, IEC 60332-1-2

Reference standards

NF M 87-202

Product No.	Cable type	Number of pairs/triads (x 2/3) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>			
1423 005	03 IP 05 EISF	3 x 2 x 0,5	12.2	38.0	126.0
1423 004	07 IP 05 EISF	7 x 2 x 0,5	17.6	87.0	339.0
1423 003	12 IP 05 EISF	12 x 2 x 0,5	23.6	145.0	558.0
1423 007	19 IP 05 EISF	19 x 2 x 0,5	29.4	229.0	867.0
1424 002	07 IT 05 EISF	7 x 3 x 0,5	18.2	120.0	399.0
1424 003	12 IT 05 EISF	12 x 3 x 0,5	24.7	205.0	673.0
1423 008	03 IP 09 EISF	3 x 2 x 0,88	15.5	60.0	223.0
1423 001	07 IP 09 EISF	7 x 2 x 0,88	20.8	138.0	470.0
1423 002	12 IP 09 EISF	12 x 2 x 0,88	28.0	235.0	778.0
1423 006	19 IP 09 EISF	19 x 2 x 0,88	34.8	368.0	1207.0
1282 001	07 IT 09 EISF	7 x 3 x 0,88	21.7	197.0	574.0
1424 001	12 IT 09 EISF	12 x 3 x 0,88	29.4	336.0	970.0

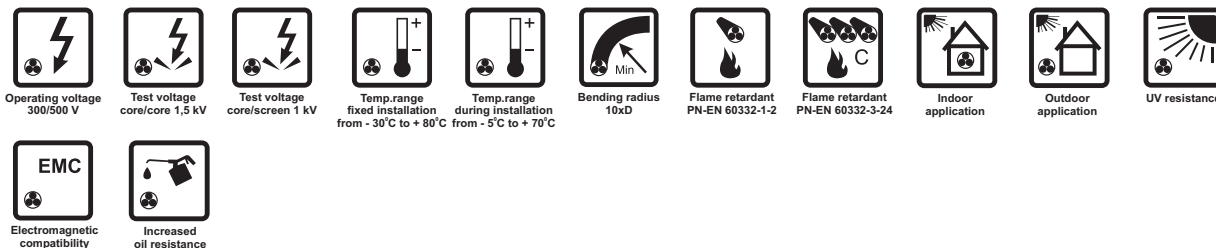
Product No.	Cable type	Number of pairs/triads (x 2/3) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>			
0874 005	03 IP 05 EIFA	3 x 2 x 0,5	16.4	38.0	348.0
0874 006	07 IP 05 EIFA	7 x 2 x 0,5	21.0	87.0	581.0
0874 007	12 IP 05 EIFA	12 x 2 x 0,5	27.2	145.0	891.0
0874 008	19 IP 05 EIFA	19 x 2 x 0,5	33.0	229.0	1277.0
1727 001	07 IT 05 EIFA	7 x 3 x 0,5	21.6	120.0	649.0
1727 002	12 IT 05 EIFA	12 x 3 x 0,5	28.1	205.0	1006.0
0874 003	03 IP 09 EIFA	3 x 2 x 0,88	18.7	60.0	440.0
0874 001	07 IP 09 EIFA	7 x 2 x 0,88	24.2	138.0	754.0
0874 002	12 IP 09 EIFA	12 x 2 x 0,88	31.8	235.0	1184.0
0874 004	19 IP 09 EIFA	19 x 2 x 0,88	38.8	368.0	1727.0
1727 003	07 IT 09 EIFA	7 x 3 x 0,88	25.3	197.0	882.0
1727 004	12 IT 09 EIFA	12 x 3 x 0,88	29.4	336.0	1397.0

Other cross-sections and pair or triad counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## ICA-Y(St)Y 300/500 V

### INSTRUMENTATION CABLES



### APPLICATIONS

**ICA-Y(St)Y 300/500 V** are multipair instrumentation cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications, allowing particularly for conditions met in chemical, petrochemical and paper industries.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for fixed indoor and outdoor installations.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

### CONSTRUCTION

- bare annealed copper single wire conductors, meeting requirements of class 1 per PN-EN 60228,
- PVC insulation (PVC type T1 acc. to PN-EN 50363-3) - identification colour code: white and red insulation and pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation resistant and special self-extinguishing PVC cable sheath (PVC type TM1 acc. to PN-EN 60363-4-1), black (RAL 9005) other colours also available.

## ICA-Y(St)Y 300/500 V

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	73.6	50.1	37.0	24.7	15.15
Mutual capacitance at 1 kHz, maximum	nF/km	140	150	160	160	180

Operating voltage U <sub>0</sub> /U	300/500 V	Operating temperature range during operation	from - 30 to + 80°C
Voltage test conductor/conductor	1500 V rms	Operating temperature range during installation	from - 5 to + 70°C
conductor/screen	1000 V rms	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Insulation resistance, minimum	20 MΩ·km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Oil resistance	PN-EN 60811-404
		Reference standards	BS 5308 Part 2 Type 1

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1346 001	1 x 2 x 0,5	5.8	14.4	51.0
1346 002	2 x 2 x 0,5	6.6	24.1	79.0

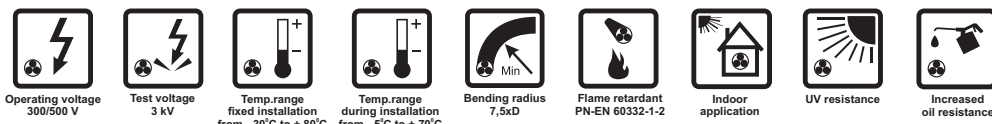
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1346 003	8 x 2 x 0,5	13.6	82.0	230.0
1346 004	24 x 2 x 0,5	22.3	236.0	580.0

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB-YSLY

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB-YSLY** are cables intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSLYv** - intrinsically safe cables with enhanced PVC sheath, suitable for outdoor installations and direct earth burial.

## TECHNOKONTROL IB-YSLY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	130	140	140	140	170

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0752 018	2 x 0,5	4.6	9.6	33
0752 024	3 x 0,5	4.9	14.4	40
0752 021	4 x 0,5	5.3	19.2	48
0752 037	5 x 0,5	5.8	24.0	59
0752 008	6 x 0,5	6.3	28.8	70
0752 031	7 x 0,5	6.3	33.6	73
0752 038	8 x 0,5	6.8	38.4	84
0752 005	10 x 0,5	8.0	48.0	103
0752 025	12 x 0,5	8.2	57.6	116
0752 039	14 x 0,5	8.7	67.2	132
0752 040	16 x 0,5	9.1	76.8	148
0752 041	18 x 0,5	10.0	86.4	175
0752 042	19 x 0,5	10.0	91.2	178
0752 043	21 x 0,5	10.5	100.8	197
0752 044	24 x 0,5	11.7	115.2	223
0752 045	27 x 0,5	12.2	129.6	250
0752 046	30 x 0,5	12.6	144.0	272
0752 047	36 x 0,5	13.6	172.8	322
0752 048	37 x 0,5	13.6	177.6	325
0752 049	40 x 0,5	14.3	192.0	358
0752 050	44 x 0,5	15.4	211.2	391
0752 051	48 x 0,5	15.7	230.4	419
0752 052	52 x 0,5	16.1	249.6	448
0752 053	56 x 0,5	16.6	268.8	480
0752 054	60 x 0,5	17.1	288.0	513
0752 017	2 x 0,75	5.0	14.4	41
0752 011	3 x 0,75	5.3	21.6	50
0752 023	4 x 0,75	5.8	28.8	61
0752 032	5 x 0,75	6.3	36.0	74
0752 055	6 x 0,75	6.9	43.2	88
0752 033	7 x 0,75	6.9	50.4	93
0752 056	8 x 0,75	7.4	57.6	107
0752 019	10 x 0,75	8.7	72.0	131
0752 057	12 x 0,75	9.0	86.4	150

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0752 058	14 x 0,75	9.9	100.8	179
0752 059	16 x 0,75	10.4	115.2	202
0752 060	18 x 0,75	11.0	129.6	226
0752 061	19 x 0,75	11.0	136.8	231
0752 062	21 x 0,75	11.5	151.2	255
0752 063	24 x 0,75	13.0	172.8	295
0752 064	27 x 0,75	13.3	194.4	323
0752 065	30 x 0,75	13.8	216.0	353
0752 066	36 x 0,75	15.1	259.2	426
0752 067	37 x 0,75	15.1	266.4	431
0752 068	40 x 0,75	15.6	288.0	465
0752 069	44 x 0,75	16.9	316.8	509
0752 070	48 x 0,75	17.2	345.6	547
0752 071	52 x 0,75	17.7	374.4	587
0752 072	56 x 0,75	18.4	403.2	637
0752 073	60 x 0,75	19.0	432.0	680
0752 006	2 x 1,0	5.4	19.2	50
0752 003	3 x 1,0	5.7	28.8	61
0752 004	4 x 1,0	6.2	38.4	74
0752 030	5 x 1,0	6.8	48.0	92
0752 074	6 x 1,0	7.4	57.6	109
0752 034	7 x 1,0	7.4	67.2	115
0752 075	8 x 1,0	8.0	76.8	133
0752 035	10 x 1,0	9.8	96.0	172
0752 076	12 x 1,0	10.2	115.2	197
0752 077	14 x 1,0	10.7	134.4	223
0752 078	16 x 1,0	11.3	153.6	253
0752 079	18 x 1,0	12.1	172.8	289
0752 080	19 x 1,0	12.1	182.4	295
0752 022	21 x 1,0	12.7	201.6	326
0752 081	24 x 1,0	14.3	230.4	376
0752 082	27 x 1,0	14.6	259.2	413
0752 083	30 x 1,0	15.2	288.0	453
0752 084	36 x 1,0	16.3	345.6	536



## TECHNOKONTROL IB-YSLY

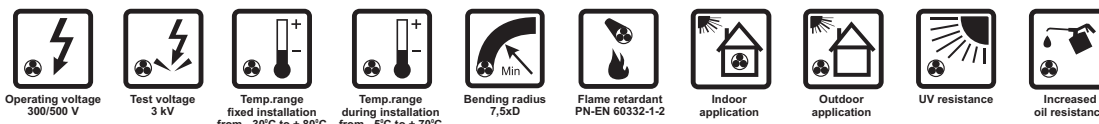
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0752 085	37 x 1,0	16.3	355.2	543
0752 086	40 x 1,0	17.0	384.0	588
0752 087	44 x 1,0	18.6	422.4	652
0752 088	48 x 1,0	18.9	460.8	701
0752 089	52 x 1,0	19.4	499.2	752
0752 090	56 x 1,0	20.0	537.6	807
0752 091	60 x 1,0	20.6	576.0	862
0752 007	2 x 1,5	5.9	28.8	64
0752 001	3 x 1,5	6.3	43.2	80
0752 036	4 x 1,5	6.9	57.6	99
0752 026	5 x 1,5	7.5	72.0	121
0752 092	6 x 1,5	8.2	86.4	145
0752 002	7 x 1,5	8.2	100.8	154
0752 027	8 x 1,5	8.9	115.2	179
0752 010	10 x 1,5	10.9	144.0	230
0752 093	12 x 1,5	11.3	172.8	264
0752 094	14 x 1,5	12.1	201.6	307
0752 028	16 x 1,5	12.8	230.4	348
0752 095	18 x 1,5	13.5	259.2	390
0752 096	19 x 1,5	13.5	273.6	399
0752 097	21 x 1,5	14.4	302.4	449
0752 029	24 x 1,5	16.0	345.6	509
0752 098	27 x 1,5	16.3	388.8	560
0752 099	30 x 1,5	16.9	432.0	614
0752 100	36 x 1,5	18.5	518.4	740
0752 101	37 x 1,5	18.5	532.8	750
0752 102	40 x 1,5	19.2	576.0	811
0752 103	44 x 1,5	20.8	633.6	889
0752 104	48 x 1,5	21.1	691.2	957

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0752 105	52 x 1,5	21.7	748.8	1028
0752 106	56 x 1,5	22.6	806.4	1115
0752 107	60 x 1,5	23.3	864.0	1192
0752 020	2 x 2,5	7.2	48.0	97
0752 013	3 x 2,5	7.6	72.0	120
0752 015	4 x 2,5	8.4	96.0	151
0752 014	5 x 2,5	9.2	120.0	186
0752 108	6 x 2,5	10.5	144.0	233
0752 009	7 x 2,5	10.5	168.0	249
0752 012	8 x 2,5	11.4	192.0	289
0752 109	10 x 2,5	13.6	240.0	361
0752 110	12 x 2,5	14.3	288.0	422
0752 111	14 x 2,5	15.0	336.0	480
0752 112	16 x 2,5	15.9	384.0	546
0752 113	18 x 2,5	16.8	432.0	612
0752 114	19 x 2,5	16.8	456.0	628
0752 115	21 x 2,5	17.6	504.0	695
0752 116	24 x 2,5	19.9	576.0	800
0752 117	27 x 2,5	20.3	648.0	881
0752 118	30 x 2,5	21.1	720.0	968
0752 119	36 x 2,5	23.0	864.0	1165
0752 120	37 x 2,5	23.0	888.0	1181
0752 121	40 x 2,5	23.9	960.0	1279
0752 122	44 x 2,5	25.9	1056.0	1401
0752 123	48 x 2,5	26.4	1152.0	1512
0752 124	52 x 2,5	27.2	1248.0	1627
0752 125	56 x 2,5	28.0	1344.0	1747
0752 126	60 x 2,5	28.9	1440.0	1869

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB-YSLY-P

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB-YSLY-P** are multipair cables intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSLYv-P** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB-YSLY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	130	140	140	140	170

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

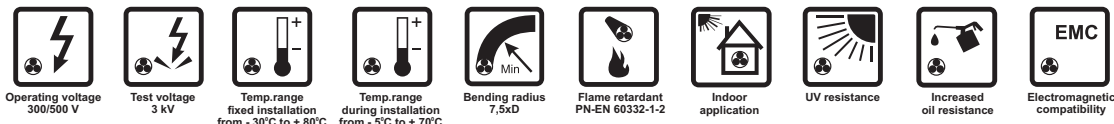
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0745 007	2 x 2 x 0,5	8.5	19.2	94
0745 015	3 x 2 x 0,5	8.9	28.8	116
0745 006	4 x 2 x 0,5	9.6	38.4	133
0745 016	5 x 2 x 0,5	10.5	48.0	153
0745 017	6 x 2 x 0,5	11.3	57.6	178
0745 009	7 x 2 x 0,5	11.3	67.2	186
0745 018	8 x 2 x 0,5	12.0	76.8	204
0745 019	10 x 2 x 0,5	13.5	96.0	246
0745 020	12 x 2 x 0,5	14.0	115.2	276
0745 021	16 x 2 x 0,5	15.8	153.6	345
0745 022	18 x 2 x 0,5	16.6	172.8	379
0745 023	20 x 2 x 0,5	17.3	192.0	411
0745 024	25 x 2 x 0,5	19.0	240.0	496
0745 025	30 x 2 x 0,5	20.6	288.0	577
0745 026	40 x 2 x 0,5	23.7	384.0	758
0745 027	50 x 2 x 0,5	26.2	480.0	915
0745 001	2 x 2 x 0,75	9.1	28.8	115
0745 028	3 x 2 x 0,75	9.6	43.2	142
0745 012	4 x 2 x 0,75	10.4	57.6	164
0745 029	5 x 2 x 0,75	11.3	72.0	188
0745 030	6 x 2 x 0,75	12.2	86.4	220
0745 031	7 x 2 x 0,75	12.2	100.8	232
0745 032	8 x 2 x 0,75	13.0	115.2	256
0745 033	10 x 2 x 0,75	14.7	144.0	310
0745 034	12 x 2 x 0,75	15.3	172.8	350
0745 010	16 x 2 x 0,75	17.2	230.4	440
0745 035	20 x 2 x 0,75	18.9	288.0	527
0745 008	2 x 2 x 1,0	9.7	38.4	134
0745 036	3 x 2 x 1,0	10.2	57.6	168
0745 037	4 x 2 x 1,0	11.1	76.8	197

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0745 038	5 x 2 x 1,0	12.2	96.0	229
0745 039	6 x 2 x 1,0	13.2	115.2	269
0745 040	7 x 2 x 1,0	13.2	134.4	285
0745 041	8 x 2 x 1,0	14.0	153.6	314
0745 042	10 x 2 x 1,0	15.8	192.0	381
0745 002	12 x 2 x 1,0	16.5	230.4	433
0745 010	16 x 2 x 1,0	18.7	307.2	549
0745 043	20 x 2 x 1,0	20.5	384.0	659
0745 044	2 x 2 x 1,5	10.7	57.6	167
0745 045	3 x 2 x 1,5	11.2	86.4	216
0745 046	4 x 2 x 1,5	12.3	115.2	256
0745 047	5 x 2 x 1,5	13.4	144.0	297
0745 048	6 x 2 x 1,5	14.6	172.8	351
0745 049	7 x 2 x 1,5	14.6	201.6	375
0745 050	8 x 2 x 1,5	15.5	230.4	414
0745 051	10 x 2 x 1,5	17.6	288.0	506
0745 052	12 x 2 x 1,5	18.4	345.6	579
0745 053	16 x 2 x 1,5	20.8	460.8	736
0745 005	20 x 2 x 1,5	23.4	576.0	913
0745 003	2 x 2 x 2,5	12.8	96.0	249
0745 054	3 x 2 x 2,5	13.5	144.0	324
0745 055	4 x 2 x 2,5	14.8	192.0	384
0745 056	5 x 2 x 2,5	16.3	240.0	450
0745 013	6 x 2 x 2,5	17.7	288.0	533
0745 057	7 x 2 x 2,5	17.7	336.0	572
0745 058	8 x 2 x 2,5	18.9	384.0	635
0745 004	10 x 2 x 2,5	21.6	480.0	779
0745 014	12 x 2 x 2,5	22.6	576.0	895
0745 059	16 x 2 x 2,5	26.1	768.0	1165
0745 060	20 x 2 x 2,5	29.2	960.0	1439

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB-YSL(St)Y

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB-YSL(St)Y** are overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 300/500 V.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSL(St)Yv** - intrinsically safe cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

## TECHNOKONTROL IB-YSL(St)Y

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	160	170	180	180	200

Operating voltage U<sub>o</sub>/U                    300/500 V  
Voltage test                                    3.0 kV rms  
Insulation resistance, minimum        20 MΩ·km  
Inductance, approximate                0.7 mH/km

Operating temperature range  
for fixed installation                    from - 30 to + 80°C  
for movable installation                from - 5 to + 70°C  
Minimum bending radius                7.5 x cable diameter  
Cable combustibility                      flame retardant  
Combustibility tests                        PN-EN 60332-1-2, IEC 60332-1-2  
Oil resistance                                PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0630 013	2 x 0,5	4.8	12.0	38
0630 011	3 x 0,5	5.1	16.8	45
0630 017	4 x 0,5	5.5	21.6	52
0630 055	5 x 0,5	6.0	26.4	62
0630 027	6 x 0,5	6.5	31.2	72
0630 056	7 x 0,5	6.5	36.0	75
0630 020	8 x 0,5	7.0	40.8	87
0630 004	10 x 0,5	8.2	50.4	105
0630 012	12 x 0,5	8.4	60.0	118
0630 057	14 x 0,5	8.9	69.6	133
0630 058	16 x 0,5	9.3	79.2	150
0630 059	18 x 0,5	10.2	88.8	176
0630 060	19 x 0,5	10.2	93.6	179
0630 061	21 x 0,5	10.7	103.2	197
0630 033	24 x 0,5	12.1	117.6	229
0630 062	27 x 0,5	12.4	132.0	251
0630 063	30 x 0,5	12.8	146.4	273
0630 064	36 x 0,5	13.8	175.2	322
0630 065	37 x 0,5	13.8	180.0	325
0630 066	44 x 0,5	15.6	213.6	390
0630 067	48 x 0,5	15.9	232.8	418
0630 068	52 x 0,5	16.3	252.0	447
0630 069	56 x 0,5	16.8	271.2	479
0630 070	60 x 0,5	17.3	290.4	511
0630 015	2 x 0,75	5.2	19.2	48
0630 021	3 x 0,75	5.5	26.4	56
0630 008	4 x 0,75	6.0	33.6	66
0630 019	5 x 0,75	6.5	40.8	79
0630 036	6 x 0,75	7.1	48.0	93
0630 047	7 x 0,75	7.1	55.2	98
0630 071	8 x 0,75	7.6	62.4	112
0630 024	10 x 0,75	8.9	76.8	136
0630 072	12 x 0,75	9.2	91.2	154
0630 073	14 x 0,75	10.1	105.6	183

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0630 074	16 x 0,75	10.6	120.0	205
0630 048	18 x 0,75	11.2	134.4	229
0630 075	19 x 0,75	11.2	141.6	233
0630 076	21 x 0,75	11.7	156.0	257
0630 077	24 x 0,75	13.2	177.6	297
0630 078	27 x 0,75	13.5	199.2	325
0630 079	30 x 0,75	14.2	220.8	361
0630 080	36 x 0,75	15.3	264.0	427
0630 081	37 x 0,75	15.3	271.2	432
0630 082	44 x 0,75	17.1	321.6	510
0630 001	2 x 1,0	5.6	24.0	57
0630 002	3 x 1,0	5.9	33.6	67
0630 018	4 x 1,0	6.4	43.2	80
0630 045	5 x 1,0	7.0	52.8	97
0630 031	6 x 1,0	7.6	62.4	113
0630 039	7 x 1,0	7.6	72.0	120
0630 022	8 x 1,0	8.2	81.6	138
0630 038	10 x 1,0	10.0	100.8	177
0630 006	12 x 1,0	10.4	120.0	201
0630 032	14 x 1,0	10.9	139.2	227
0630 046	16 x 1,0	11.5	158.4	256
0630 083	18 x 1,0	12.3	177.6	291
0630 037	19 x 1,0	12.3	187.2	297
0630 030	21 x 1,0	12.9	206.4	328
0630 007	24 x 1,0	14.5	235.2	378
0630 084	27 x 1,0	14.8	264.0	414
0630 034	30 x 1,0	15.4	292.8	453
0630 085	37 x 1,0	16.5	360.0	543
0630 086	40 x 1,0	17.2	388.8	587
0630 009	2 x 1,5	6.1	36.0	73
0630 016	3 x 1,5	6.5	50.4	88
0630 044	4 x 1,5	7.1	64.8	106
0630 049	5 x 1,5	7.7	79.2	128

## TECHNOKONTROL IB-YSL(St)Y

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0630 023	6 x 1,5	8.4	93.6	151
0630 003	7 x 1,5	8.4	108.0	161
0630 087	8 x 1,5	9.1	122.4	185
0630 035	10 x 1,5	11.1	151.2	236
0630 050	12 x 1,5	11.5	180.0	269
0630 088	14 x 1,5	12.3	208.8	311
0630 043	16 x 1,5	13.0	237.6	352
0630 051	18 x 1,5	13.7	266.4	393
0630 089	19 x 1,5	13.7	280.8	402
0630 028	24 x 1,5	16.2	352.8	512
0630 090	27 x 1,5	16.5	396.0	562
0630 091	30 x 1,5	17.1	439.2	615
0630 092	34 x 1,5	18.7	496.8	721

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0630 014	2 x 2,5	7.4	55.2	106
0630 026	3 x 2,5	7.8	79.2	128
0630 052	4 x 2,5	8.6	103.2	157
0630 093	5 x 2,5	9.8	127.2	201
0630 094	6 x 2,5	10.7	151.2	237
0630 095	7 x 2,5	10.7	175.2	254
0630 096	8 x 2,5	11.6	199.2	293
0630 053	10 x 2,5	13.8	247.2	365
0630 097	12 x 2,5	14.5	295.2	425
0630 098	14 x 2,5	15.2	343.2	482
0630 099	16 x 2,5	16.1	391.2	546
0630 100	18 x 2,5	17.0	439.2	612
0630 101	19 x 2,5	17.0	463.2	628
0630 054	24 x 2,5	20.1	583.2	799

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB-YSL(St)Y-P

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB-YSL(St)Y-P** are multipair overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSL(St)Yv-P** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB-YSL(St)Y-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	150	150	160	160	180

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0793 020	2 x 2 x 0,5	8.6	21.6	99
0793 042	3 x 2 x 0,5	9.0	31.2	122
0793 031	4 x 2 x 0,5	9.7	40.8	139
0793 043	5 x 2 x 0,5	10.6	50.4	159
0793 044	6 x 2 x 0,5	11.4	60.0	184
0793 045	7 x 2 x 0,5	11.4	69.6	192
0793 040	8 x 2 x 0,5	12.1	79.2	210
0793 046	10 x 2 x 0,5	13.6	98.4	253
0793 047	12 x 2 x 0,5	14.1	117.6	282
0793 048	16 x 2 x 0,5	15.9	156.0	352
0793 049	18 x 2 x 0,5	16.7	175.2	386
0793 050	20 x 2 x 0,5	17.4	194.4	418
0793 051	25 x 2 x 0,5	19.1	242.4	504
0793 052	30 x 2 x 0,5	20.7	290.4	586
0793 053	40 x 2 x 0,5	23.8	386.4	767
0793 054	50 x 2 x 0,5	26.3	482.4	925
0793 019	2 x 2 x 0,75	9.2	33.6	123
0793 035	3 x 2 x 0,75	9.7	48.0	150
0793 029	4 x 2 x 0,75	10.5	62.4	172
0793 036	5 x 2 x 0,75	11.4	76.8	196
0793 016	6 x 2 x 0,75	12.3	91.2	229
0793 041	7 x 2 x 0,75	12.3	105.6	240
0793 027	8 x 2 x 0,75	13.1	120.0	264
0793 032	10 x 2 x 0,75	14.8	148.8	319
0793 002	12 x 2 x 0,75	15.4	177.6	359
0793 028	16 x 2 x 0,75	17.3	235.2	449
0793 037	20 x 2 x 0,75	19.0	292.8	537
0793 010	2 x 2 x 1,0	9.8	43.2	142
0793 003	3 x 2 x 1,0	10.3	62.4	176
0793 021	4 x 2 x 1,0	11.2	81.6	205

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0793 024	5 x 2 x 1,0	12.3	100.8	237
0793 017	6 x 2 x 1,0	13.3	120.0	278
0793 006	7 x 2 x 1,0	13.3	139.2	293
0793 004	8 x 2 x 1,0	14.1	158.4	322
0793 005	10 x 2 x 1,0	15.9	196.8	390
0793 001	12 x 2 x 1,0	16.6	235.2	442
0793 012	16 x 2 x 1,0	18.8	312.0	559
0793 025	20 x 2 x 1,0	20.6	388.8	670
0793 008	2 x 2 x 1,5	10.8	64.8	177
0793 007	3 x 2 x 1,5	11.3	93.6	226
0793 055	4 x 2 x 1,5	12.4	122.4	266
0793 015	5 x 2 x 1,5	13.5	151.2	307
0793 056	6 x 2 x 1,5	14.7	180.0	362
0793 030	7 x 2 x 1,5	14.7	208.8	386
0793 057	8 x 2 x 1,5	15.6	237.6	426
0793 013	10 x 2 x 1,5	17.7	295.2	518
0793 018	12 x 2 x 1,5	18.5	352.8	591
0793 033	16 x 2 x 1,5	20.9	468.0	749
0793 058	20 x 2 x 1,5	23.5	583.2	926
0793 022	2 x 2 x 2,5	12.9	103.2	260
0793 034	3 x 2 x 2,5	13.6	151.2	336
0793 059	4 x 2 x 2,5	14.9	199.2	396
0793 060	5 x 2 x 2,5	16.4	247.2	462
0793 061	6 x 2 x 2,5	17.8	295.2	545
0793 062	7 x 2 x 2,5	17.8	343.2	584
0793 063	8 x 2 x 2,5	19.0	391.2	647
0793 064	10 x 2 x 2,5	21.7	487.2	792
0793 023	12 x 2 x 2,5	23.1	583.2	929
0793 065	16 x 2 x 2,5	26.2	775.2	1179
0793 066	20 x 2 x 2,5	29.3	967.2	1454

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOKONTROL IB-YSL(St)Y PIMF

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB-YSL(St)Y PIMF** are multipair, pair and overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 300/500 V.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pair shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSL(St)Yv PIMF** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB-YSL(St)Y PIMF

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	250	280	310	310	380

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0792 026	2 x 2 x 0,5	8.9	28.2	106
0792 033	3 x 2 x 0,5	9.4	39.9	131
0792 034	4 x 2 x 0,5	10.2	51.6	153
0792 035	5 x 2 x 0,5	11.0	63.4	174
0792 036	6 x 2 x 0,5	11.9	75.1	206
0792 037	7 x 2 x 0,5	11.9	86.8	215
0792 024	8 x 2 x 0,5	12.6	98.5	235
0792 003	10 x 2 x 0,5	14.2	121.9	287
0792 010	12 x 2 x 0,5	14.8	145.3	323
0792 038	16 x 2 x 0,5	16.7	192.2	406
0792 039	18 x 2 x 0,5	17.5	215.6	446
0792 040	20 x 2 x 0,5	18.3	239.0	491
0792 041	25 x 2 x 0,5	20.2	297.6	599
0792 042	30 x 2 x 0,5	21.8	356.2	753
0792 006	2 x 2 x 0,75	9.5	37.8	121
0792 027	3 x 2 x 0,75	10.0	54.3	155
0792 021	4 x 2 x 0,75	10.9	70.8	182
0792 017	5 x 2 x 0,75	11.9	87.4	211
0792 032	6 x 2 x 0,75	12.8	103.9	249
0792 028	7 x 2 x 0,75	12.8	120.4	261
0792 022	8 x 2 x 0,75	13.6	136.9	288
0792 043	10 x 2 x 0,75	15.4	169.9	353
0792 005	12 x 2 x 0,75	16.1	202.9	400
0792 015	16 x 2 x 0,75	18.1	269.0	505
0792 044	20 x 2 x 0,75	19.9	335.0	612
0792 001	2 x 2 x 1,0	10.2	47.4	140
0792 030	3 x 2 x 1,0	10.7	68.7	182
0792 045	4 x 2 x 1,0	11.7	90.0	215
0792 023	5 x 2 x 1,0	12.7	111.4	249
0792 020	6 x 2 x 1,0	13.8	132.7	298

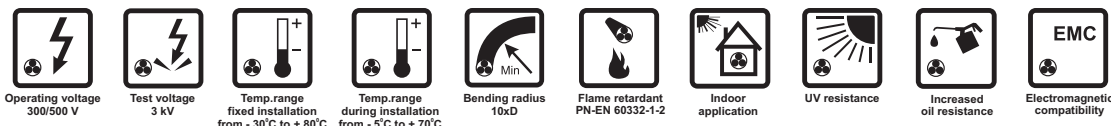
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0792 046	7 x 2 x 1,0	13.8	154.0	314
0792 004	8 x 2 x 1,0	14.7	175.3	347
0792 002	10 x 2 x 1,0	16.6	217.9	425
0792 014	12 x 2 x 1,0	17.3	260.5	483
0792 013	16 x 2 x 1,0	19.6	345.8	614
0792 047	20 x 2 x 1,0	21.6	431.0	749
0792 018	2 x 2 x 1,5	11.1	66.6	172
0792 048	3 x 2 x 1,5	11.7	97.5	226
0792 016	4 x 2 x 1,5	12.8	128.4	270
0792 049	5 x 2 x 1,5	14.0	159.4	316
0792 050	6 x 2 x 1,5	15.2	190.3	378
0792 051	7 x 2 x 1,5	15.2	221.2	401
0792 019	8 x 2 x 1,5	16.2	252.1	444
0792 052	10 x 2 x 1,5	18.3	313.9	545
0792 007	12 x 2 x 1,5	19.2	375.7	625
0792 009	16 x 2 x 1,5	21.7	499.4	798
0792 008	20 x 2 x 1,5	24.3	623.0	996
0792 053	2 x 2 x 2,5	13.2	105.0	244
0792 054	3 x 2 x 2,5	14.0	155.1	328
0792 055	4 x 2 x 2,5	15.3	205.2	392
0792 056	5 x 2 x 2,5	16.8	255.4	461
0792 057	6 x 2 x 2,5	18.4	305.5	558
0792 058	7 x 2 x 2,5	18.4	355.6	593
0792 059	8 x 2 x 2,5	19.6	405.7	657
0792 060	10 x 2 x 2,5	22.3	505.9	813
0792 061	12 x 2 x 2,5	23.8	606.1	957
0792 062	16 x 2 x 2,5	26.9	806.6	1219
0792 063	20 x 2 x 2,5	30.1	1007.0	1513

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB-YSLCY

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB-YSLCY** are overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 300/500 V.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSLCEY** - cables with drain wire stranded of tin-plated annealed copper wires (class 2), laid under a shield.

**TECHNOKONTROL IB-YSLCYv** - intrinsically safe cables with enhanced PVC sheath, suitable for outdoor installations and direct earth burial.

## TECHNOKONTROL IB-YSLCY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	160	170	180	180	200

Operating voltage Uo/U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0581 057	1 x 0,5	3.5	8.8	21
0581 001	2 x 0,5	5.1	17.6	36
0581 022	3 x 0,5	5.4	22.5	44
0581 042	4 x 0,5	5.8	28.9	54
0581 058	5 x 0,5	6.3	33.7	64
0581 012	6 x 0,5	6.8	39.4	75
0581 040	7 x 0,5	6.8	44.2	78
0581 059	8 x 0,5	7.3	50.0	91
0581 043	10 x 0,5	8.6	67.0	113
0581 050	12 x 0,5	8.8	76.6	128
0581 060	14 x 0,5	9.3	87.2	144
0581 047	16 x 0,5	10.1	98.5	171
0581 061	18 x 0,5	10.6	108.7	190
0581 062	19 x 0,5	10.6	113.5	193
0581 063	21 x 0,5	11.1	124.4	212
0581 064	24 x 0,5	12.5	142.3	245
0581 065	27 x 0,5	12.8	157.1	267
0581 044	30 x 0,5	13.2	172.5	290
0581 066	36 x 0,5	14.4	203.9	348
0581 067	37 x 0,5	14.4	208.7	352
0581 068	40 x 0,5	14.9	224.4	379
0581 069	44 x 0,5	16.1	253.6	419
0581 070	48 x 0,5	16.4	273.8	449
0581 071	52 x 0,5	16.8	294.2	479
0581 072	56 x 0,5	17.3	314.9	512
0581 073	60 x 0,5	17.8	335.9	546
0581 074	1 x 0,75	3.7	12.0	25
0581 016	2 x 0,75	5.5	22.5	43
0581 008	3 x 0,75	5.8	31.3	54
0581 002	4 x 0,75	6.3	38.5	65
0581 007	5 x 0,75	6.8	46.6	79
0581 033	6 x 0,75	7.4	55.0	95
0581 017	7 x 0,75	7.4	62.2	99
0581 030	8 x 0,75	8.0	74.2	118
0581 075	10 x 0,75	9.3	92.0	141

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0581 028	12 x 0,75	10.0	107.1	170
0581 076	14 x 0,75	10.5	122.9	192
0581 077	16 x 0,75	11.0	138.6	216
0581 026	18 x 0,75	11.6	154.5	241
0581 078	19 x 0,75	11.6	161.7	246
0581 079	21 x 0,75	12.3	177.4	277
0581 054	24 x 0,75	13.6	202.4	311
0581 080	27 x 0,75	13.9	224.7	341
0581 081	30 x 0,75	14.6	247.6	378
0581 082	36 x 0,75	15.8	300.7	454
0581 083	37 x 0,75	15.8	307.9	459
0581 084	40 x 0,75	16.3	331.4	494
0581 085	44 x 0,75	17.6	363.9	538
0581 086	1 x 1,0	3.8	14.4	28
0581 010	2 x 1,0	5.9	28.9	51
0581 021	3 x 1,0	6.2	38.5	64
0581 003	4 x 1,0	6.7	48.8	78
0581 004	5 x 1,0	7.3	59.6	97
0581 053	6 x 1,0	8.0	74.2	119
0581 024	7 x 1,0	8.0	83.8	125
0581 025	8 x 1,0	8.6	95.8	145
0581 052	10 x 1,0	10.4	117.8	183
0581 051	12 x 1,0	10.8	138.1	209
0581 087	14 x 1,0	11.3	158.8	237
0581 035	16 x 1,0	12.1	179.3	273
0581 088	18 x 1,0	12.7	200.0	304
0581 089	19 x 1,0	12.7	209.6	311
0581 090	21 x 1,0	13.3	230.4	343
0581 048	24 x 1,0	14.9	262.8	393
0581 091	27 x 1,0	15.3	299.2	438
0581 092	30 x 1,0	15.9	329.8	479
0581 093	36 x 1,0	17.0	390.8	566
0581 094	37 x 1,0	17.0	400.4	572
0581 095	40 x 1,0	17.7	431.4	618

## TECHNOKONTROL IB-YSLCY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0581 096	1 x 1,5	4.1	19.8	34
0581 005	2 x 1,5	6.4	38.6	63
0581 006	3 x 1,5	6.8	53.8	82
0581 032	4 x 1,5	7.4	69.4	102
0581 009	5 x 1,5	8.1	88.9	130
0581 097	6 x 1,5	8.8	105.4	155
0581 018	7 x 1,5	8.8	119.8	165
0581 098	8 x 1,5	9.9	135.7	200
0581 099	10 x 1,5	11.5	168.6	239
0581 034	12 x 1,5	12.1	198.5	282
0581 049	14 x 1,5	12.7	228.8	320
0581 038	16 x 1,5	13.4	259.4	363
0581 100	18 x 1,5	14.3	290.1	412
0581 015	19 x 1,5	14.3	304.5	422
0581 101	21 x 1,5	15.1	341.8	473
0581 102	24 x 1,5	16.7	389.9	532
0581 055	27 x 1,5	17.0	434.0	586
0581 103	30 x 1,5	17.6	479.1	642

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0581 104	34 x 1,5	19.2	541.0	752
0581 105	1 x 2,5	4.7	30.4	47
0581 011	2 x 2,5	7.7	60.4	91
0581 013	3 x 2,5	8.2	89.1	124
0581 014	4 x 2,5	9.0	115.2	156
0581 056	5 x 2,5	10.2	141.7	203
0581 106	6 x 2,5	11.1	167.6	242
0581 107	7 x 2,5	11.1	191.6	258
0581 108	8 x 2,5	12.2	217.9	305
0581 109	10 x 2,5	14.4	271.1	373
0581 110	12 x 2,5	14.9	320.4	432
0581 111	14 x 2,5	15.7	377.2	499
0581 041	16 x 2,5	16.6	427.9	567
0581 112	18 x 2,5	17.5	478.8	635
0581 113	19 x 2,5	17.5	502.8	651
0581 114	21 x 2,5	18.5	553.2	729
0581 115	24 x 2,5	20.6	631.8	821

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB-YSLCY-P

### INTRINSICALLY SAFE CABLES



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from - 30°C to + 80°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Outdoor  
application



UV resistance



Increased  
oil resistance



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**TECHNOKONTROL IB-YSLCY-P** are multipair overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

Paired structure decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- cable screen wrapped in polyester tape,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSLCYv-P** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB-YSLCY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	130	140	150	150	170

Operating voltage U <sub>o</sub> /U	300/500 V	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0582 001	2 x 2 x 0,5	9.0	31.2	96
0582 026	3 x 2 x 0,5	9.5	45.4	113
0582 027	4 x 2 x 0,5	10.2	57.4	134
0582 028	5 x 2 x 0,5	11.1	68.7	156
0582 029	6 x 2 x 0,5	11.9	80.5	177
0582 030	7 x 2 x 0,5	11.9	90.1	191
0582 031	8 x 2 x 0,5	12.6	101.4	211
0582 032	10 x 2 x 0,5	14.1	124.5	253
0582 033	12 x 2 x 0,5	14.6	145.0	285
0582 034	14 x 2 x 0,5	15.6	166.8	322
0582 035	16 x 2 x 0,5	16.5	195.1	365
0582 036	18 x 2 x 0,5	17.3	216.7	401
0582 037	20 x 2 x 0,5	18.0	238.1	435
0582 038	24 x 2 x 0,5	19.4	280.9	504
0582 039	25 x 2 x 0,5	19.7	291.4	521
0582 040	30 x 2 x 0,5	21.3	344.4	605
0582 015	2 x 2 x 0,75	9.7	45.9	120
0582 012	3 x 2 x 0,75	10.2	62.2	136
0582 019	4 x 2 x 0,75	11.0	78.1	161
0582 041	5 x 2 x 0,75	11.9	94.9	188
0582 042	6 x 2 x 0,75	12.8	111.6	215
0582 010	7 x 2 x 0,75	12.8	126.0	234
0582 003	8 x 2 x 0,75	13.6	142.4	260
0582 043	10 x 2 x 0,75	15.3	175.6	315
0582 007	12 x 2 x 0,75	16.0	212.8	365
0582 044	14 x 2 x 0,75	17.0	245.0	412
0582 002	16 x 2 x 0,75	17.9	276.3	458
0582 045	18 x 2 x 0,75	18.8	307.8	504
0582 005	20 x 2 x 0,75	19.6	339.1	550
0582 011	2 x 2 x 1,0	10.3	57.4	137
0582 046	3 x 2 x 1,0	10.8	77.6	158
0582 004	4 x 2 x 1,0	11.7	99.1	191

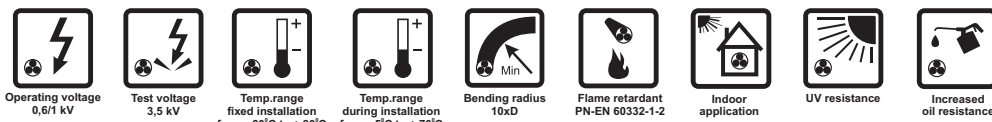
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0582 020	5 x 2 x 1,0	12.8	121.2	225
0582 021	6 x 2 x 1,0	13.8	142.9	259
0582 013	7 x 2 x 1,0	13.8	162.1	283
0582 047	8 x 2 x 1,0	14.6	183.4	315
0582 016	10 x 2 x 1,0	16.5	233.5	390
0582 022	12 x 2 x 1,0	17.2	274.1	445
0582 023	14 x 2 x 1,0	18.4	316.2	506
0582 009	16 x 2 x 1,0	19.4	357.7	565
0582 048	18 x 2 x 1,0	20.3	398.9	622
0582 049	20 x 2 x 1,0	21.2	440.0	680
0582 014	2 x 2 x 1,5	11.3	79.3	167
0582 008	3 x 2 x 1,5	11.8	109.0	198
0582 050	4 x 2 x 1,5	12.9	140.6	242
0582 051	5 x 2 x 1,5	14.0	172.3	287
0582 052	6 x 2 x 1,5	15.2	204.2	334
0582 018	7 x 2 x 1,5	15.2	233.0	369
0582 053	8 x 2 x 1,5	16.2	271.0	419
0582 017	10 x 2 x 1,5	18.3	335.1	509
0582 024	12 x 2 x 1,5	19.1	395.1	585
0582 054	14 x 2 x 1,5	20.4	456.8	667
0582 055	16 x 2 x 1,5	21.5	517.7	747
0582 056	18 x 2 x 1,5	22.6	578.8	827
0582 057	20 x 2 x 1,5	24.3	662.8	953
0582 058	2 x 2 x 2,5	13.4	123.1	238
0582 059	3 x 2 x 2,5	14.1	172.5	284
0582 060	4 x 2 x 2,5	15.4	223.9	353
0582 061	5 x 2 x 2,5	17.0	283.4	431
0582 062	6 x 2 x 2,5	18.4	335.4	501
0582 063	7 x 2 x 2,5	18.4	383.4	557
0582 064	10 x 2 x 2,5	22.3	539.5	764
0582 025	12 x 2 x 2,5	23.9	661.2	930

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB1-YSLY

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB1-YSLY** are cables intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB1-YSLYv** - intrinsically safe cables with enhanced PVC sheath, suitable for outdoor installations and direct earth burial.



## TECHNOKONTROL IB1-YSLY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	100	110	120	130	140

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
0944 012	2 x 0,5	6.0	9.6	51
0944 013	3 x 0,5	6.3	14.4	60
0944 014	4 x 0,5	6.9	19.2	72
0944 015	5 x 0,5	7.5	24.0	87
0944 016	6 x 0,5	8.1	28.8	102
0944 017	7 x 0,5	8.1	33.6	105
0944 018	8 x 0,5	8.8	38.4	122
0944 019	10 x 0,5	10.5	48.0	154
0944 020	12 x 0,5	10.8	57.6	172
0944 021	14 x 0,5	11.4	67.2	194
0944 022	16 x 0,5	12.2	76.8	224
0944 023	18 x 0,5	12.8	86.4	249
0944 024	19 x 0,5	12.8	91.2	253
0944 025	21 x 0,5	13.5	100.8	279
0944 026	24 x 0,5	15.2	115.2	324
0944 027	27 x 0,5	15.5	129.6	352
0944 028	30 x 0,5	16.1	144.0	384
0944 029	36 x 0,5	17.3	172.8	453
0944 030	37 x 0,5	17.3	177.6	456
0944 031	40 x 0,5	18.0	192.0	493
0944 032	44 x 0,5	19.9	211.2	558
0944 033	48 x 0,5	20.2	230.4	596
0944 034	52 x 0,5	20.8	249.6	638
0944 035	56 x 0,5	21.4	268.8	682
0944 036	60 x 0,5	22.0	288.0	727
0944 037	2 x 0,75	6.4	14.4	61
0944 038	3 x 0,75	6.7	21.6	71
0944 009	4 x 0,75	7.3	28.8	85
0944 039	5 x 0,75	8.0	36.0	104
0944 040	6 x 0,75	8.7	43.2	124
0944 041	7 x 0,75	8.7	50.4	128
0944 042	8 x 0,75	9.4	57.6	149
0944 043	10 x 0,75	11.2	72.0	187
0944 044	12 x 0,75	11.6	86.4	211
0944 045	14 x 0,75	12.4	100.8	243

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
0944 046	16 x 0,75	13.1	115.2	275
0944 047	18 x 0,75	13.8	129.6	307
0944 048	19 x 0,75	13.8	136.8	312
0944 049	21 x 0,75	14.7	151.2	351
0944 050	24 x 0,75	16.3	172.8	398
0944 051	27 x 0,75	16.7	194.4	435
0944 052	30 x 0,75	17.3	216.0	475
0944 053	36 x 0,75	19.0	259.2	579
0944 054	37 x 0,75	19.0	266.4	584
0944 055	40 x 0,75	19.7	288.0	630
0944 056	44 x 0,75	21.4	316.8	691
0944 057	48 x 0,75	21.7	345.6	740
0944 058	52 x 0,75	22.3	374.4	792
0944 059	56 x 0,75	23.4	403.2	870
0944 060	60 x 0,75	24.1	432.0	928
0944 002	2 x 1,0	6.7	19.2	69
0944 007	3 x 1,0	7.1	28.8	83
0944 061	4 x 1,0	7.8	38.4	101
0944 062	5 x 1,0	8.5	48.0	124
0944 001	6 x 1,0	9.2	57.6	147
0944 063	7 x 1,0	9.2	67.2	153
0944 064	8 x 1,0	10.2	76.8	183
0944 065	10 x 1,0	12.2	96.0	230
0944 066	12 x 1,0	12.5	115.2	259
0944 067	14 x 1,0	13.2	134.4	293
0944 068	16 x 1,0	13.9	153.6	331
0944 069	18 x 1,0	14.9	172.8	377
0944 070	19 x 1,0	14.9	182.4	384
0944 071	21 x 1,0	15.6	201.6	424
0944 072	24 x 1,0	17.4	230.4	481
0944 073	27 x 1,0	17.8	259.2	527
0944 074	30 x 1,0	18.8	288.0	593
0944 075	36 x 1,0	20.3	345.6	703
0944 076	37 x 1,0	20.3	355.2	709
0944 077	40 x 1,0	21.1	384.0	766

## TECHNOKONTROL IB1-YSLY

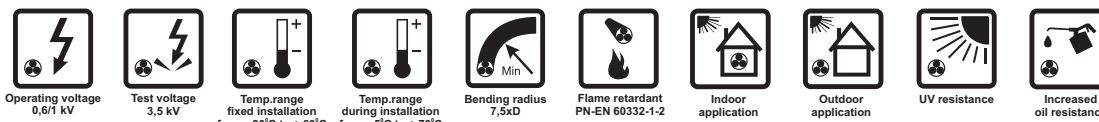
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0944 078	44 x 1,0	23.2	422.4	860
0944 079	48 x 1,0	23.6	460.8	922
0944 080	52 x 1,0	24.3	499.2	988
0944 081	56 x 1,0	25.0	537.6	1058
0944 082	60 x 1,0	25.7	576.0	1129
0944 083	2 x 1,5	7.3	28.8	86
0944 004	3 x 1,5	7.7	43.2	104
0944 084	4 x 1,5	8.4	57.6	127
0944 005	5 x 1,5	9.2	72.0	157
0944 085	6 x 1,5	10.3	86.4	192
0944 086	7 x 1,5	10.3	100.8	202
0944 087	8 x 1,5	11.1	115.2	234
0944 088	10 x 1,5	13.3	144.0	294
0944 089	12 x 1,5	13.7	172.8	334
0944 090	14 x 1,5	14.6	201.6	385
0944 006	16 x 1,5	15.4	230.4	435
0944 091	18 x 1,5	16.3	259.2	487
0944 092	19 x 1,5	16.3	273.6	498
0944 093	21 x 1,5	17.1	302.4	550
0944 094	24 x 1,5	19.4	345.6	642
0944 095	27 x 1,5	19.9	388.8	705
0944 096	30 x 1,5	20.6	432.0	771
0944 097	36 x 1,5	22.2	518.4	915
0944 098	37 x 1,5	22.2	532.8	925
0944 099	40 x 1,5	23.5	576.0	1022
0944 100	44 x 1,5	25.4	633.6	1120
0944 101	48 x 1,5	25.9	691.2	1204
0944 102	52 x 1,5	26.6	748.8	1291

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0944 103	56 x 1,5	27.4	806.4	1384
0944 104	60 x 1,5	28.2	864.0	1478
0944 010	2 x 2,5	8.1	48.0	114
0944 008	3 x 2,5	8.6	72.0	142
0944 105	4 x 2,5	9.5	96.0	176
0944 011	5 x 2,5	10.6	120.0	222
0944 106	6 x 2,5	11.5	144.0	264
0944 107	7 x 2,5	11.5	168.0	280
0944 108	8 x 2,5	12.7	192.0	331
0944 109	10 x 2,5	15.1	240.0	414
0944 110	12 x 2,5	15.6	288.0	474
0944 111	14 x 2,5	16.5	336.0	540
0944 112	16 x 2,5	17.4	384.0	612
0944 113	18 x 2,5	18.8	432.0	704
0944 114	19 x 2,5	18.8	456.0	720
0944 115	21 x 2,5	19.7	504.0	796
0944 116	24 x 2,5	22.0	576.0	905
0944 117	27 x 2,5	22.5	648.0	997
0944 118	30 x 2,5	23.7	720.0	1114
0944 119	36 x 2,5	25.6	864.0	1325
0944 120	37 x 2,5	25.6	888.0	1341
0944 121	40 x 2,5	26.6	960.0	1450
0944 122	44 x 2,5	28.8	1056.0	1590
0944 123	48 x 2,5	29.3	1152.0	1712
0944 124	52 x 2,5	30.1	1248.0	1839
0944 125	56 x 2,5	31.0	1344.0	1973
0944 126	60 x 2,5	32.2	1440.0	2126

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB1-YSLY-P

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB1-YSLY-P** are multipair cables intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB1-YSLYv-P** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB1-YSLY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	100	110	120	130	140

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	Operating temperature range for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

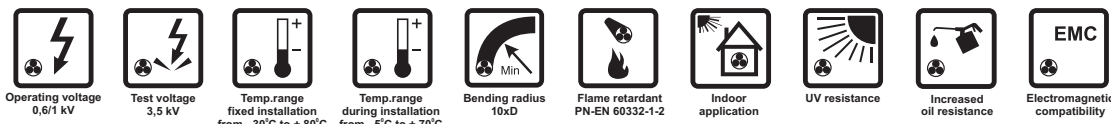
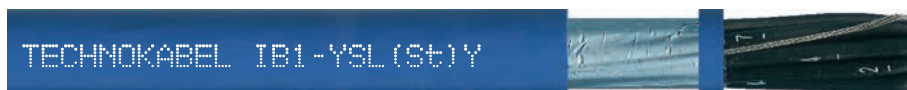
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1552 002	2 x 2 x 0,5	10.1	19.2	128
1552 003	3 x 2 x 0,5	10.6	28.8	158
1552 004	4 x 2 x 0,5	11.6	38.4	182
1552 005	5 x 2 x 0,5	12.7	48.0	209
1552 006	6 x 2 x 0,5	13.7	57.6	243
1552 007	7 x 2 x 0,5	13.7	67.2	253
1552 008	8 x 2 x 0,5	14.6	76.8	277
1552 009	10 x 2 x 0,5	16.5	96.0	335
1552 010	12 x 2 x 0,5	17.3	115.2	377
1552 011	16 x 2 x 0,5	19.5	153.6	470
1552 012	18 x 2 x 0,5	20.5	172.8	516
1552 013	20 x 2 x 0,5	21.5	192.0	561
1552 014	25 x 2 x 0,5	24.1	240.0	701
1552 015	30 x 2 x 0,5	26.1	288.0	810
1552 016	40 x 2 x 0,5	30.1	384.0	1060
1552 017	50 x 2 x 0,5	33.2	480.0	1279
1552 018	2 x 2 x 0,75	10.7	28.8	147
1552 019	3 x 2 x 0,75	11.3	43.2	187
1552 020	4 x 2 x 0,75	12.4	57.6	217
1552 021	5 x 2 x 0,75	13.5	72.0	248
1552 022	6 x 2 x 0,75	14.7	86.4	292
1552 023	7 x 2 x 0,75	14.7	100.8	305
1552 024	8 x 2 x 0,75	15.6	115.2	335
1552 025	10 x 2 x 0,75	17.7	144.0	407
1552 026	12 x 2 x 0,75	18.5	172.8	459
1552 027	16 x 2 x 0,75	21.0	230.4	577
1552 028	20 x 2 x 0,75	23.5	288.0	712
1552 029	2 x 2 x 1,0	11.4	38.4	173
1552 030	3 x 2 x 1,0	12.0	57.6	219
1552 031	4 x 2 x 1,0	13.1	76.8	253

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1552 032	5 x 2 x 1,0	14.4	96.0	293
1552 033	6 x 2 x 1,0	15.6	115.2	345
1552 034	7 x 2 x 1,0	15.6	134.4	362
1552 035	8 x 2 x 1,0	16.6	153.6	399
1552 036	10 x 2 x 1,0	18.9	192.0	486
1552 037	12 x 2 x 1,0	19.8	230.4	551
1552 038	16 x 2 x 1,0	22.4	307.2	696
1552 039	20 x 2 x 1,0	25.1	384.0	857
1552 001	2 x 2 x 1,5	12.3	57.6	213
1552 040	3 x 2 x 1,5	13.0	86.4	271
1552 041	4 x 2 x 1,5	14.2	115.2	316
1552 042	5 x 2 x 1,5	15.6	144.0	367
1552 043	6 x 2 x 1,5	17.0	172.8	435
1552 044	7 x 2 x 1,5	17.0	201.6	461
1552 045	8 x 2 x 1,5	18.2	230.4	510
1552 046	10 x 2 x 1,5	20.7	288.0	623
1552 047	12 x 2 x 1,5	21.6	345.6	709
1552 048	16 x 2 x 1,5	25.0	460.8	922
1552 049	20 x 2 x 1,5	27.5	576.0	1110
1552 050	2 x 2 x 2,5	13.7	96.0	279
1552 051	3 x 2 x 2,5	14.5	144.0	363
1552 052	4 x 2 x 2,5	16.0	192.0	431
1552 053	5 x 2 x 2,5	17.6	240.0	503
1552 054	6 x 2 x 2,5	19.2	288.0	598
1552 055	7 x 2 x 2,5	19.2	336.0	639
1552 056	8 x 2 x 2,5	20.5	384.0	708
1552 057	10 x 2 x 2,5	23.8	480.0	890
1552 058	12 x 2 x 2,5	24.9	576.0	1015
1552 059	16 x 2 x 2,5	28.6	768.0	1319
1552 060	20 x 2 x 2,5	31.6	960.0	1597

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB1-YSL(St)Y

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB1-YSL(St)Y** are overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB1-YSL(St)Yv** - intrinsically safe cables with enhanced PVC sheath, suitable for outdoor installations and direct earth burial.

## TECHNOKONTROL IB1-YSL(St)Y

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	120	130	140	150	170

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0773 021	2 x 0,5	6.2	12.0	57
0773 022	3 x 0,5	6.5	16.8	64
0773 018	4 x 0,5	7.1	21.6	76
0773 023	5 x 0,5	7.7	26.4	90
0773 024	6 x 0,5	8.3	31.2	105
0773 025	7 x 0,5	8.3	36.0	108
0773 026	8 x 0,5	9.0	40.8	124
0773 027	10 x 0,5	10.7	50.4	156
0773 028	12 x 0,5	11.0	60.0	174
0773 030	14 x 0,5	11.6	69.6	195
0773 031	16 x 0,5	12.4	79.2	225
0773 032	18 x 0,5	13.0	88.8	249
0773 033	19 x 0,5	13.0	93.6	252
0773 034	21 x 0,5	13.7	103.2	279
0773 035	24 x 0,5	15.4	117.6	323
0773 036	27 x 0,5	15.7	132.0	350
0773 037	30 x 0,5	16.3	146.4	381
0773 038	36 x 0,5	17.5	175.2	450
0773 039	37 x 0,5	17.5	180.0	453
0773 040	40 x 0,5	18.2	194.4	489
0773 007	2 x 0,75	6.6	19.2	68
0773 013	3 x 0,75	6.9	26.4	77
0773 020	4 x 0,75	7.5	33.6	91
0773 041	5 x 0,75	8.2	40.8	109
0773 042	6 x 0,75	8.9	48.0	128
0773 043	7 x 0,75	8.9	55.2	133
0773 044	8 x 0,75	9.6	62.4	152
0773 045	10 x 0,75	11.4	76.8	190
0773 046	12 x 0,75	11.8	91.2	214
0773 047	14 x 0,75	12.6	105.6	246
0773 048	16 x 0,75	13.3	120.0	277
0773 049	18 x 0,75	14.0	134.4	308
0773 050	19 x 0,75	14.0	141.6	313
0773 051	21 x 0,75	14.9	156.0	352
0773 052	24 x 0,75	16.5	177.6	398

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0773 053	27 x 0,75	16.9	199.2	435
0773 054	30 x 0,75	17.5	220.8	473
0773 055	34 x 0,75	19.2	249.6	567
0773 001	2 x 1,0	6.9	24.0	77
0773 017	3 x 1,0	7.3	33.6	90
0773 002	4 x 1,0	8.0	43.2	107
0773 029	5 x 1,0	8.7	52.8	129
0773 056	6 x 1,0	9.4	62.4	150
0773 057	7 x 1,0	9.4	72.0	157
0773 058	8 x 1,0	10.4	81.6	186
0773 059	10 x 1,0	12.4	100.8	233
0773 005	12 x 1,0	12.7	120.0	261
0773 060	14 x 1,0	13.4	139.2	294
0773 006	16 x 1,0	14.1	158.4	331
0773 061	18 x 1,0	15.1	177.6	377
0773 062	19 x 1,0	15.1	187.2	384
0773 063	21 x 1,0	15.8	206.4	423
0773 064	24 x 1,0	17.6	235.2	481
0773 065	27 x 1,0	18.0	264.0	526
0773 066	30 x 1,0	19.0	292.8	590
0773 010	2 x 1,5	7.5	36.0	96
0773 008	3 x 1,5	7.9	50.4	112
0773 012	4 x 1,5	8.6	64.8	134
0773 011	5 x 1,5	9.4	79.2	162
0773 067	6 x 1,5	10.5	93.6	197
0773 014	7 x 1,5	10.5	108.0	208
0773 068	8 x 1,5	11.3	122.4	238
0773 009	10 x 1,5	13.5	151.2	298
0773 015	12 x 1,5	13.9	180.0	337
0773 069	14 x 1,5	14.8	208.8	387
0773 070	16 x 1,5	15.6	237.6	436
0773 071	18 x 1,5	16.5	266.4	488
0773 072	19 x 1,5	16.5	280.8	498
0773 073	21 x 1,5	17.3	309.6	550

## TECHNOKONTROL IB1-YSL(St)Y

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0773 074	24 x 1,5	19.6	352.8	642
0773 016	2 x 2,5	8.3	55.2	124
0773 075	3 x 2,5	8.8	79.2	150
0773 076	4 x 2,5	9.7	103.2	183
0773 077	5 x 2,5	10.8	127.2	227
0773 078	6 x 2,5	11.7	151.2	268

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0773 079	7 x 2,5	11.7	175.2	284
0773 080	8 x 2,5	12.9	199.2	334
0773 081	10 x 2,5	15.3	247.2	416
0773 082	12 x 2,5	15.8	295.2	475
0773 083	14 x 2,5	16.7	343.2	539
0773 084	16 x 2,5	17.6	391.2	611
0773 085	18 x 2,5	19.0	439.2	701

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB1-YSL(St)Y-P

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB1-YSL(St)Y-P** are multipair overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

Paired structure decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB1-YSL(St)Yv-P** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.



## TECHNOKONTROL IB1-YSL(St)Y-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	120	120	130	140	150

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	Operating temperature range for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

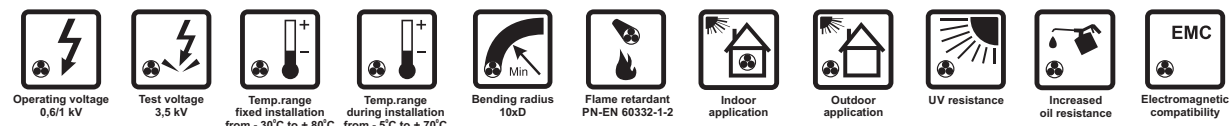
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0774 011	2 x 2 x 0,5	10.2	21.6	134
0774 012	3 x 2 x 0,5	10.7	31.2	165
0774 013	4 x 2 x 0,5	11.7	40.8	188
0774 014	5 x 2 x 0,5	12.8	50.4	215
0774 015	6 x 2 x 0,5	13.8	60.0	250
0774 016	7 x 2 x 0,5	13.8	69.6	260
0774 017	8 x 2 x 0,5	14.7	79.2	284
0774 018	10 x 2 x 0,5	16.6	98.4	342
0774 019	12 x 2 x 0,5	17.4	117.6	385
0774 020	16 x 2 x 0,5	19.6	156.0	479
0774 021	18 x 2 x 0,5	20.6	175.2	525
0774 022	20 x 2 x 0,5	21.6	194.4	570
0774 023	25 x 2 x 0,5	24.2	242.4	710
0774 024	30 x 2 x 0,5	26.2	290.4	820
0774 025	40 x 2 x 0,5	30.2	386.4	1071
0774 026	50 x 2 x 0,5	33.3	482.4	1291
0774 006	2 x 2 x 0,75	10.8	33.6	155
0774 027	3 x 2 x 0,75	11.4	48.0	196
0774 028	4 x 2 x 0,75	12.5	62.4	226
0774 003	5 x 2 x 0,75	13.6	76.8	257
0774 029	6 x 2 x 0,75	14.8	91.2	301
0774 030	7 x 2 x 0,75	14.8	105.6	314
0774 031	8 x 2 x 0,75	15.7	120.0	344
0774 004	10 x 2 x 0,75	17.8	148.8	416
0774 009	12 x 2 x 0,75	18.6	177.6	469
0774 032	16 x 2 x 0,75	21.1	235.2	588
0774 033	20 x 2 x 0,75	23.6	292.8	724
0774 002	2 x 2 x 1,0	11.5	43.2	182
0774 034	3 x 2 x 1,0	12.1	62.4	228
0774 034	4 x 2 x 1,0	13.2	81.6	262

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0774 036	5 x 2 x 1,0	14.5	100.8	302
0774 037	6 x 2 x 1,0	15.7	120.0	354
0774 038	7 x 2 x 1,0	15.7	139.2	372
0774 039	8 x 2 x 1,0	16.7	158.4	408
0774 005	10 x 2 x 1,0	19.0	196.8	496
0774 001	12 x 2 x 1,0	19.9	235.2	562
0774 010	16 x 2 x 1,0	22.5	312.0	707
0774 040	20 x 2 x 1,0	25.2	388.8	869
0774 041	2 x 2 x 1,5	12.4	64.8	223
0774 042	3 x 2 x 1,5	13.1	93.6	282
0774 007	4 x 2 x 1,5	14.3	122.4	328
0774 043	5 x 2 x 1,5	15.7	151.2	379
0774 044	6 x 2 x 1,5	17.1	180.0	447
0774 045	7 x 2 x 1,5	17.1	208.8	473
0774 046	8 x 2 x 1,5	18.3	237.6	522
0774 047	10 x 2 x 1,5	20.8	295.2	636
0774 048	12 x 2 x 1,5	21.7	352.8	722
0774 049	16 x 2 x 1,5	25.1	468.0	935
0774 050	20 x 2 x 1,5	27.6	583.2	1124
0774 051	2 x 2 x 2,5	13.8	103.2	290
0774 052	3 x 2 x 2,5	14.6	151.2	375
0774 053	4 x 2 x 2,5	16.1	199.2	443
0774 054	5 x 2 x 2,5	17.7	247.2	515
0774 055	6 x 2 x 2,5	19.3	295.2	611
0774 056	7 x 2 x 2,5	19.3	343.2	652
0774 057	8 x 2 x 2,5	20.6	391.2	721
0774 058	10 x 2 x 2,5	23.9	487.2	904
0774 059	12 x 2 x 2,5	25.0	583.2	1029
0774 060	16 x 2 x 2,5	28.7	775.2	1334
0774 061	20 x 2 x 2,5	31.7	967.2	1613

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOKONTROL IB1-YSL(St)Y PIMF

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROL IB1-YSL(St)Y PIMF** are multipair, pair and overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pair shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB4YSL(St)Yv PIMF**- intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB1-YSL(St)Y PIMF

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC loop resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, approximate	nF/km	160	180	200	220	270

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

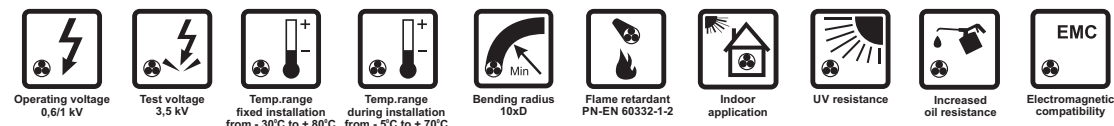
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
0997 021	2 x 2 x 0,5	10.6	28.2	132
0997 022	3 x 2 x 0,5	11.1	39.9	171
0997 023	4 x 2 x 0,5	12.1	51.6	198
0997 024	5 x 2 x 0,5	13.3	63.4	230
0997 025	6 x 2 x 0,5	14.4	75.1	273
0997 026	7 x 2 x 0,5	14.4	86.8	282
0997 027	8 x 2 x 0,5	15.3	98.5	309
0997 028	10 x 2 x 0,5	17.3	121.9	377
0997 012	12 x 2 x 0,5	18.1	145.3	425
0997 029	16 x 2 x 0,5	20.5	192.2	535
0997 030	18 x 2 x 0,5	21.5	215.6	587
0997 031	20 x 2 x 0,5	22.5	239.0	647
0997 032	25 x 2 x 0,5	25.2	297.6	809
0997 033	30 x 2 x 0,5	27.3	356.2	1009
0997 034	2 x 2 x 0,75	11.2	37.8	153
0997 035	3 x 2 x 0,75	11.8	54.3	198
0997 003	4 x 2 x 0,75	12.9	70.8	231
0997 018	5 x 2 x 0,75	14.1	87.4	267
0997 036	6 x 2 x 0,75	15.3	103.9	319
0997 037	7 x 2 x 0,75	15.3	120.4	331
0997 011	8 x 2 x 0,75	16.3	136.9	364
0997 038	10 x 2 x 0,75	18.5	169.9	447
0997 010	12 x 2 x 0,75	19.3	202.9	505
0997 001	16 x 2 x 0,75	21.9	269.0	639
0997 039	20 x 2 x 0,75	24.5	335.0	792
0997 006	2 x 2 x 1,0	11.8	47.4	171
0997 014	3 x 2 x 1,0	12.5	68.7	227
0997 009	4 x 2 x 1,0	13.6	90.0	265
0997 004	5 x 2 x 1,0	15.0	111.4	310
0997 040	6 x 2 x 1,0	16.3	132.7	371

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			kg/km
0997 041	7 x 2 x 1,0	16.3	154.0	388
0997 013	8 x 2 x 1,0	17.3	175.3	425
0997 042	10 x 2 x 1,0	19.7	217.9	524
0997 005	12 x 2 x 1,0	20.6	260.5	595
0997 007	16 x 2 x 1,0	23.7	345.8	775
0997 008	20 x 2 x 1,0	26.1	431.0	935
0997 016	2 x 2 x 1,5	12.7	66.6	206
0997 043	3 x 2 x 1,5	13.4	97.5	275
0997 019	4 x 2 x 1,5	14.7	128.4	326
0997 017	5 x 2 x 1,5	16.2	159.4	382
0997 044	6 x 2 x 1,5	17.6	190.3	459
0997 045	7 x 2 x 1,5	17.6	221.2	483
0997 002	8 x 2 x 1,5	18.8	252.1	534
0997 046	10 x 2 x 1,5	21.4	313.9	659
0997 047	12 x 2 x 1,5	22.4	375.7	752
0997 048	16 x 2 x 1,5	25.8	499.4	978
0997 049	20 x 2 x 1,5	28.9	623.0	1215
0997 050	2 x 2 x 2,5	14.2	105.0	271
0997 051	3 x 2 x 2,5	15.0	155.1	363
0997 015	4 x 2 x 2,5	16.5	205.2	435
0997 052	5 x 2 x 2,5	18.1	255.4	511
0997 020	6 x 2 x 2,5	19.8	305.5	618
0997 053	7 x 2 x 2,5	19.8	355.6	655
0997 054	8 x 2 x 2,5	21.1	405.7	725
0997 055	10 x 2 x 2,5	24.5	505.9	918
0997 056	12 x 2 x 2,5	25.6	606.1	1050
0997 057	16 x 2 x 2,5	29.5	806.6	1372
0997 058	20 x 2 x 2,5	32.6	1007.0	1671

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNOKONTROL IB1-YSLCY

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROLIB1-YSLCY** are overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- black PVC insulation and white conductor numbers printed on it for identification,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB-YSLCEY**- cables with drain wire stranded of tin-plated annealed copper wires (class 2), laid under a shield.

**TECHNOKONTROL IB4YSLCYv**- intrinsically safe cables with enhanced PVC sheath, suitable for outdoor installations and direct earth burial.

## TECHNOKONTROL IB1-YSLCY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41
Capacitance between conductors at 1 kHz, appr.	nF/km	120	130	140	150	170

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	Operating temperature range for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0942 015	1 x 0,5	4.3	9.6	29
0942 016	2 x 0,5	6.5	19.3	52
0942 017	3 x 0,5	6.8	24.2	63
0942 018	4 x 0,5	7.4	30.2	76
0942 019	5 x 0,5	8.0	36.2	92
0942 005	6 x 0,5	8.7	46.2	112
0942 020	7 x 0,5	8.7	51.0	116
0942 021	8 x 0,5	9.4	57.6	134
0942 022	10 x 0,5	11.1	71.1	164
0942 023	12 x 0,5	11.4	82.0	185
0942 024	14 x 0,5	12.2	92.6	213
0942 025	16 x 0,5	12.8	103.9	240
0942 026	18 x 0,5	13.4	114.9	266
0942 027	19 x 0,5	13.4	119.7	269
0942 028	21 x 0,5	14.1	131.1	297
0942 029	24 x 0,5	15.9	156.4	347
0942 030	27 x 0,5	16.2	171.7	377
0942 031	30 x 0,5	16.8	187.9	410
0942 032	36 x 0,5	18.0	220.7	483
0942 033	37 x 0,5	18.0	225.5	486
0942 034	40 x 0,5	19.1	241.9	541
0942 035	41 x 0,5	19.7	248.5	574
0942 036	1 x 0,75	4.5	12.6	33
0942 037	2 x 0,75	6.9	24.4	59
0942 013	3 x 0,75	7.2	32.2	73
0942 007	4 x 0,75	7.8	40.6	90
0942 014	5 x 0,75	8.6	53.1	113
0942 038	6 x 0,75	9.3	62.2	134
0942 039	7 x 0,75	9.3	69.4	139
0942 040	8 x 0,75	10.2	78.3	165
0942 041	10 x 0,75	11.8	96.9	196
0942 042	12 x 0,75	12.4	112.3	228
0942 043	14 x 0,75	13.0	128.3	257
0942 044	16 x 0,75	13.7	144.5	290
0942 045	18 x 0,75	14.6	160.7	330

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0942 046	19 x 0,75	14.6	167.9	335
0942 047	21 x 0,75	15.4	190.8	376
0942 048	24 x 0,75	17.0	217.4	421
0942 049	27 x 0,75	17.4	240.3	461
0942 050	30 x 0,75	18.0	263.9	502
0942 051	34 x 0,75	19.7	296.5	601
0942 052	1 x 1,0	4.7	16.0	38
0942 002	2 x 1,0	7.2	29.8	67
0942 009	3 x 1,0	7.6	40.2	85
0942 004	4 x 1,0	8.4	55.0	109
0942 053	5 x 1,0	9.1	67.0	133
0942 011	6 x 1,0	10.0	77.8	161
0942 054	7 x 1,0	10.0	87.4	168
0942 008	8 x 1,0	10.8	99.1	194
0942 055	10 x 1,0	12.8	123.1	238
0942 056	12 x 1,0	13.1	142.9	270
0942 003	14 x 1,0	13.8	164.0	306
0942 012	16 x 1,0	14.7	185.0	352
0942 057	18 x 1,0	15.6	213.1	400
0942 058	19 x 1,0	15.6	222.7	407
0942 059	21 x 1,0	16.3	244.0	449
0942 060	24 x 1,0	18.1	278.4	504
0942 061	27 x 1,0	18.9	308.4	570
0942 062	30 x 1,0	19.5	339.1	621
0942 063	1 x 1,5	5.0	20.8	44
0942 064	2 x 1,5	7.8	40.6	82
0942 006	3 x 1,5	8.3	59.6	109
0942 065	4 x 1,5	9.0	76.6	135
0942 066	5 x 1,5	10.0	92.2	169
0942 067	6 x 1,5	10.9	109.0	201
0942 068	7 x 1,5	10.9	123.4	212
0942 069	8 x 1,5	11.7	139.8	245
0942 070	10 x 1,5	13.9	173.8	300
0942 071	12 x 1,5	14.5	203.7	350

## TECHNOKONTROL IB1-YSLCY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0942 072	14 x 1,5	15.3	241.0	404
0942 073	16 x 1,5	16.1	272.2	457
0942 074	18 x 1,5	17.0	303.8	510
0942 075	19 x 1,5	17.0	318.2	521
0942 076	21 x 1,5	17.8	349.5	575
0942 077	24 x 1,5	20.1	398.6	665
0942 078	25 x 1,5	20.6	414.6	710
0942 079	1 x 2,5	5.4	32.1	57
0942 010	2 x 2,5	8.7	65.4	111
0942 080	3 x 2,5	9.2	91.0	145

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0942 081	4 x 2,5	10.3	117.7	186
0942 082	5 x 2,5	11.2	143.4	229
0942 083	6 x 2,5	12.3	169.7	278
0942 084	7 x 2,5	12.3	193.7	295
0942 085	8 x 2,5	13.3	220.3	341
0942 086	10 x 2,5	15.8	280.9	424
0942 087	12 x 2,5	16.3	330.4	489
0942 088	14 x 2,5	17.2	381.2	558
0942 089	16 x 2,5	18.1	432.0	632
0942 090	18 x 2,5	19.5	483.1	727

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNOKONTROL IB1-YSLCY-P

### INTRINSICALLY SAFE CABLES



### APPLICATIONS

**TECHNOKONTROLIB1-YSLCY-P** are multipair overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

Paired structure decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are designed to offer high flexibility combined with tensile strength.

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  - "a" wire – black insulation and white pair number printed on it,
  - "b" wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- cable screen wrapped in polyester tape,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3

### AVAILABLE UPON REQUEST

**TECHNOKONTROL IB1YSLCYvP** - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

## TECHNOKONTROL IB1-YSLCY-P

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, appr.	nF/km	120	120	120	130	140

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 30 to + 80°C
Voltage test	3.5 kV rms	Operating temperature range for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1414 005	2 x 2 x 0,5	10.7	39.0	129
1414 009	3 x 2 x 0,5	11.2	50.5	145
1414 010	4 x 2 x 0,5	12.2	62.0	173
1414 011	5 x 2 x 0,5	13.3	74.5	202
1414 012	6 x 2 x 0,5	14.3	86.6	231
1414 013	7 x 2 x 0,5	14.3	96.2	250
1414 014	10 x 2 x 0,5	17.2	139.7	342
1414 015	12 x 2 x 0,5	18.0	161.3	387
1414 016	14 x 2 x 0,5	19.2	184.3	436
1414 017	16 x 2 x 0,5	20.2	206.6	484
1414 018	18 x 2 x 0,5	21.2	228.8	532
1414 019	20 x 2 x 0,5	22.2	251.2	580
1414 020	24 x 2 x 0,5	24.6	318.4	720
1414 021	25 x 2 x 0,5	25.0	329.8	744
1414 022	30 x 2 x 0,5	27.2	412.4	888
1414 004	2 x 2 x 0,75	11.3	50.5	146
1414 023	3 x 2 x 0,75	11.9	66.1	168
1414 024	4 x 2 x 0,75	13.0	83.3	203
1414 025	5 x 2 x 0,75	14.1	100.5	238
1414 026	6 x 2 x 0,75	15.3	118.0	274
1414 027	7 x 2 x 0,75	15.3	132.4	298
1414 028	10 x 2 x 0,75	18.4	191.4	409
1414 029	12 x 2 x 0,75	19.2	222.7	465
1414 030	14 x 2 x 0,75	20.5	255.5	526
1414 003	16 x 2 x 0,75	21.7	288.0	587
1414 031	18 x 2 x 0,75	23.4	342.2	692
1414 032	20 x 2 x 0,75	24.4	375.3	753
1414 002	2 x 2 x 1,0	12.0	61.5	169
1414 033	3 x 2 x 1,0	12.6	82.2	194
1414 034	4 x 2 x 1,0	13.7	104.3	234

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1414 035	5 x 2 x 1,0	15.0	126.9	278
1414 006	6 x 2 x 1,0	16.3	156.1	328
1414 036	7 x 2 x 1,0	16.3	175.3	359
1414 037	10 x 2 x 1,0	19.6	243.1	484
1414 007	12 x 2 x 1,0	20.5	284.3	553
1414 001	14 x 2 x 1,0	21.9	327.0	628
1414 038	16 x 2 x 1,0	23.7	391.5	747
1414 039	18 x 2 x 1,0	24.9	435.0	822
1414 040	20 x 2 x 1,0	26.0	478.0	895
1414 041	2 x 2 x 1,5	12.9	83.0	204
1414 042	3 x 2 x 1,5	13.6	113.6	236
1414 043	4 x 2 x 1,5	14.8	145.5	290
1414 044	5 x 2 x 1,5	16.3	184.9	352
1414 045	6 x 2 x 1,5	17.7	218.0	408
1414 046	7 x 2 x 1,5	17.7	246.8	450
1414 047	10 x 2 x 1,5	21.4	344.7	612
1414 048	12 x 2 x 1,5	22.3	405.1	703
1414 049	14 x 2 x 1,5	24.5	490.9	849
1414 050	16 x 2 x 1,5	25.9	554.4	946
1414 051	18 x 2 x 1,5	27.4	643.8	1073
1414 052	20 x 2 x 1,5	29.0	707.8	1198
1414 053	2 x 2 x 2,5	14.3	125.0	263
1414 054	3 x 2 x 2,5	15.1	175.1	313
1414 055	4 x 2 x 2,5	16.7	234.1	396
1414 056	5 x 2 x 2,5	18.3	287.1	474
1414 057	6 x 2 x 2,5	19.9	340.0	552
1414 058	7 x 2 x 2,5	19.9	388.0	614
1414 059	10 x 2 x 2,5	24.7	568.6	890
1414 060	12 x 2 x 2,5	25.8	669.1	1021

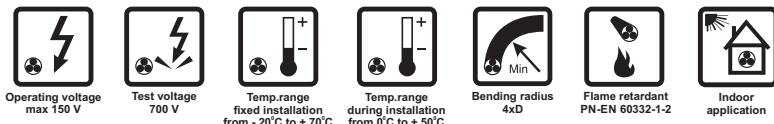
Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## UTP kat.5e 4x2x0,5 mm - 155 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

UTP kat.5e 4x2x0,5 mm cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- PVC cable sheath, grey RAL 7035, other colours also available.

### AVAILABLE UPON REQUEST

UTP-H kat.5e 4x2x0,5 mm - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## UTP kat.5e 4x2x0,5 mm - 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Return loss, minimum at f=20÷155 MHz	25-7lg(f/20) dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	DC loop resistance at 20°C, maximum	188 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	2 %
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Operating voltage	150 V	Phase delay T	534+36/√f ns/100 m
Voltage test	700 V rms	Operating temperature range during operation	from - 20 to + 70°C
Velocity of propagation	65 %	Operating temperature range during installation	from 0 to + 50°C
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=10÷20 MHz	25 dB	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-3-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
A	[dB/100 m]	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22	28.1

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	[dB]	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

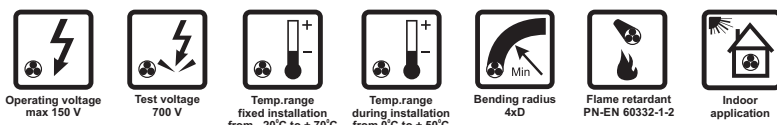
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0251 004	4 x 2 x 0,5	5.0	15.7	27

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## UTP (L) kat.5e 4x2x0,5 mm - 155 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

UTP (L) kat.5e 4x2x0,5 mm cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.48 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- PVC cable sheath, grey RAL 7035, other colours also available

### AVAILABLE UPON REQUEST

UTP-H (L) kat.5e 4x2x0,5 mm - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## UTP (L) kat.5e 4x2x0,5 mm - 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Return loss, minimum at f=20÷155 MHz	25-7lg(f/20) dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	DC loop resistance at 20°C, maximum	210 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	2 %
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Operating voltage	150 V	Phase delay T	534+36/√f ns/100 m
Voltage test	700 V rms	Operating temperature range during operation	from - 20 to + 70°C
Velocity of propagation	65 %	Operating temperature range during installation	from 0 to + 50°C
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=10÷20 MHz	25 dB	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-3-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
A	[dB/100 m]	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22.0	28.1

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	[dB]	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

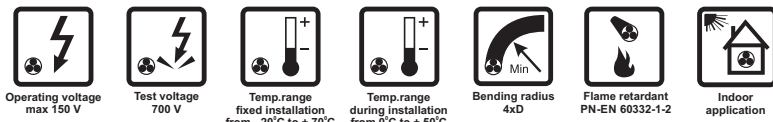
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0251 026	4 x 2 x 0,5	4.7	13.8	24.0

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## UTP kat.6 4x2x0,57 mm - 250 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

UTP kat.6 4x2x0,57 mm cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.57 mm, 23 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core on cross-shaped filler,
- PVC cable sheath, grey RAL 7035, other colours also available

### AVAILABLE UPON REQUEST

UTP-H kat.6 4x2x0,57 mm - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## UTP kat.6 4x2x0,57 mm - 250 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Return loss, minimum at f=20÷250 MHz	25-7 lg(f/20)dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	DC loop resistance at 20°C, maximum	188 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	2 %
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Operating voltage	150 V	Phase delay T	534+36/√f ns/100 m
Voltage test	700 V rms	Operating temperature range during operation	from - 20 to + 70°C
Velocity of propagation	65 %	Operating temperature range during installation	from 0 to + 50°C
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=10÷20 MHz	25 dB	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-6-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	150	200	250
A	[dB/100 m]	2.0	3.8	5.9	6.0	7.6	8.5	9.6	10.7	15.5	19.9	24.9	29.2	33.0

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	150	200	250
NEXT	[dB]	74.3	65.3	60.8	59.3	56.3	54.8	53.3	51.9	47.4	44.3	41.7	39.8	38.3
PSNEXT	[dB]	72.3	63.3	58.8	57.3	54.3	52.8	51.3	49.9	45.4	42.3	39.7	37.8	36.3
ACR	[dB]	67.3	56.5	50.4	48.3	43.7	41.3	38.8	36.2	26.9	19.4	11.8	5.6	0.3

#### Far end cross-talk between pairs, minimum

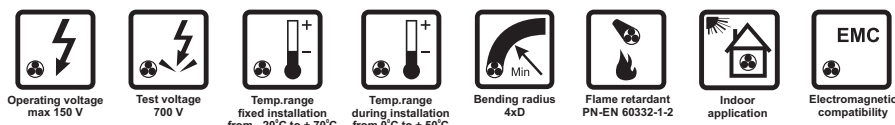
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	150	200	250
ELFEXT	[dB]	67.8	55.7	49.7	47.8	43.7	41.7	39.8	37.9	31.8	27.8	24.2	21.7	19.8
PSELFEXT	[dB]	64.8	52.7	46.7	44.8	40.7	38.7	36.8	34.9	28.8	24.8	21.2	18.7	16.8

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0251 007	4 x 2 x 0,57	6.8	20.3	46

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## FTP kat.5e 4x2x0,5 mm - 155 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP kat.5e 4x2x0,5 mm cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating an aluminium-polyester tape and an annealed tinned copper single drain wire of diameter 0.5 mm,
- PVC cable sheath, grey RAL 7035, other colours also available

### AVAILABLE UPON REQUEST

**FTP-H kat.5e 4x2x0,5 mm** - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## FTP kat.5e 4x2x0.5 mm - 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f=30 ÷ 1000 MHz	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	188 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Voltage test	700 V rms	Phase delay T	534+36/√f ns/100 m
Velocity of propagation	65 %	Operating temperature range during operation	from - 20 to + 70°C
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	during installation	from 0 to + 50°C
Return loss, minimum at f=10÷20 MHz	25 dB	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=20÷155 MHz	25-8.6lg(f/20)dB	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-2-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
a	[dB/100 m]	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22	28.1

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	[dB]	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

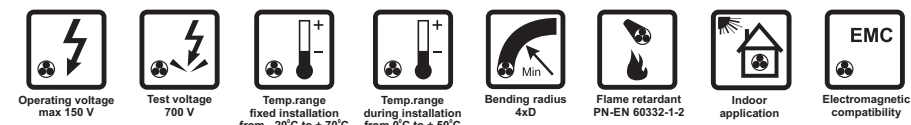
Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0013 005	4 x 2 x 0,5	5.8	17.5	36.0

TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## FTP (L) kat.5e 4x2x0,5 mm - 155 MHz

### LOCAL AREA NETWORK CABLES



## APPLICATIONS

FTP (L) kat.5e 4x2x0,5 mm cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

## CONSTRUCTION

- annealed copper single wire conductors of diameter 0.48 mm,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating an aluminium-polyester tape and an annealed tinned copper single drain wire of diameter 0.4 mm,
- PVC cable sheath, grey RAL 7035, other colours also available.

## AVAILABLE UPON REQUEST

FTP-H (L) kat.5e 4x2x0,5 mm - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## FTP (L) kat.5e 4x2x0,5 mm - 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f=30 ÷ 1000 MHz - min.	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	210 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Voltage test	700 V rms	Phase delay T	534+36/√f ns/100 m
Velocity of propagation	65 %	Operating temperature range during operation	from - 20 to + 70°C
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	during installation	from 0 to + 50°C
Return loss, minimum at f=10÷20 MHz	25 dB	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=20÷155 MHz	25-8.6lg(f/20)dB	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-2-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
A	[dB/100 m]	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22	28.1

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	[dB]	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

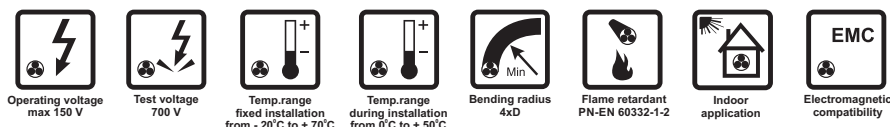
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0013 019	4 x 2 x 0,5	5.3	14.8	30.0

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## FTP kat.5e 4x2x0,14c mm<sup>2</sup>

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP kat.5e 4x2x0,14c mm<sup>2</sup> are patch cables, applied in multimedia computer networks (data, sound and HDTV transmission) including structural wiring of buildings, in industrial and other dedicated networks sensitive to electromagnetic interferences.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 0.14 mm<sup>2</sup> (7x0.16 mm), 26 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating aluminium-polyester tape and stranded of an annealed tinned copper drain wire,
- PVC cable sheath, grey RAL 7035, other colours also available.

### AVAILABLE UPON REQUEST

FTP-H kat.5e 4x2x0,14c mm<sup>2</sup> - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## FTP kat.5e 4x2x0,14c mm<sup>2</sup>

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f=30 ÷ 1000 MHz - min.	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	290 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Operating temperature range during operation	from - 20 to + 70°C
Voltage test	700 V rms	during installation	from 0 to + 50°C
Velocity of propagation	65 %	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=4÷10 MHz	25+5lg(f) dB	Cable combustibility	flame retardant
Return loss, minimum at f=10÷20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Return loss, minimum at f=20÷125 MHz	25-8.6lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-6 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	10	16	20	31.25	62.5	100	125
A	[dB/100 m]	3.2	6.0	9.5	12.1	13.5	17.1	24.8	32	34.0

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	125
NEXT	[dB]	65.0	56.0	50	50.3	47	46	44.3	43	38	35	34
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

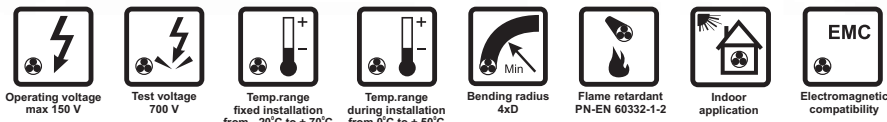
Product No.	Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>	mm	kg/km	kg/km
0013 010	FTP kat.5e	4 x 2 x 0,14c	5.0	12.1	27.5

Product No.	Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>	mm	kg/km	kg/km
0503 004	FTP-H kat.5e	4 x 2 x 0,14c	5.3	12.1	33.3

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## FTP (L) kat.5e 4x2x0,14 mm - 155 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP (L) kat.5e 4x2x0,14 mm are patch cables, applied in multimedia computer networks (data, sound and HDTV transmission) including structural wiring of buildings, in industrial and other dedicated networks sensitive to electromagnetic interferences.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires, cross-section 0.14 mm<sup>2</sup> (7x0.16 mm),
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core wrapped in polyester tape,
- collective shields, incorporating aluminium-polyester tape and stranded of an annealed tinned copper drain wire, cross-section 0.14 mm<sup>2</sup>,
- PVC cable sheath, grey RAL 7035, other colours also available.

### AVAILABLE UPON REQUEST

FTP-H (L) kat.5e 4x2x0,14 mm - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## FTP (L) kat.5e 4x2x0,14 mm - 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f=30 ÷ 1000 MHz - min.	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	290 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Phase delay T	534+36/√f ns/100 m
Voltage test	700 V rms	Operating temperature range during operation	from - 20 to + 70°C
Velocity of propagation	65 %	Operating temperature range during installation	from 0 to + 50°C
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=10÷20 MHz	25 dB	Cable combustibility	flame retardant
Return loss, minimum at f=20÷155 MHz	25-8.6lg(f/20)dB	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50288-2-2, IEC 61156-5 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	10	16	20	31.25	62.5	100	125
A	[dB/100 m]	3.2	6.0	9.5	12.1	13.5	17.1	24.8	32	34.0

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	125
NEXT	[dB]	65.0	56.0	50	50.3	47	46	44.3	43	38	35	34
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

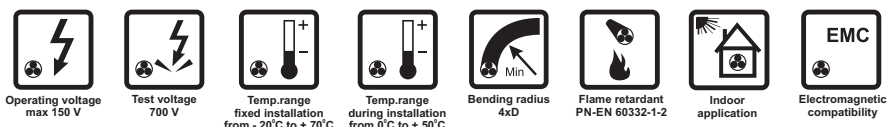
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0013 020	4 x 2 x 0,14	5.0	12.1	26.0

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## FTP-C kat.5e 4x2x0,14c mm<sup>2</sup>

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP-C kat.5e 4x2x0,14c mm<sup>2</sup> are patch cables, applied in multimedia computer networks (data, sound and HDTV transmission) including structural wiring of buildings, in industrial and other dedicated networks sensitive to electromagnetic interferences.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 0.14 mm<sup>2</sup> (7x0.16 mm), 26 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating an aluminium-polyester tape and a tinned copper wire braid,
- PVC cable sheath, grey RAL 7035, other colours also available

### AVAILABLE UPON REQUEST

**FTP-C-H kat.5e 4x2x0,14c mm<sup>2</sup>** - halogen free material sheathed cables applied in locations where, in case of fire, higher safety level is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

**FTP-C-11Y kat.5e 4x2x0,14c mm<sup>2</sup>** - soft polyurethane sheathed cables (11Y) of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

## FTP-C kat.5e 4x2x0,14c mm<sup>2</sup>

### CHARACTERISTICS

Characteristic impedance	100 ± 5 Ω	Minimum shielding attenuation at the frequency f= 30 ÷ 1000 MHz - min.	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	290 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Operating temperature range during operation	from - 20 to + 70°C
Voltage test	700 V rms	Operating temperature range during installation	from 0 to + 50°C
Current-carrying capacity, maximum	175 mA	Minimum bending radius	4 x cable diameter
Velocity of propagation	65 %	Cable combustibility	flame retardant
Return loss, minimum at f=4÷10 MHz	25+5lg(f) dB	Combustibility tests	PN-EN 60332-1-2, 60332-1-2
Return loss, minimum at f=10÷20 MHz	25 dB	Reference standards	PN-EN 50288-2-2, IEC 61156-6 ISO/IEC 11801, TIA/EIA 568 A
Return loss, minimum at f=20÷125 MHz	25-8.6lg(f/20) dB		

#### Attenuation loss, maximum

f	[MHz]	1	4	10	16	20	31.25	62.5	100
A	[dB/100 m]	3.2	6.0	9.5	12.1	13.6	17.1	24.8	32

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100
NEXT	[dB]	65.3	56.3	51.8	50.3	47.2	45.8	44.3	42.9	38.4	35.3
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.2	42.8	41.3	39.9	35.4	32.3
ACR	[dB]	62.1	50.3	43.3	40.8	35.1	32.2	29.1	25.8	13.6	3.3

#### Far end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100
ELFEXT	[dB]	63.8	51.8	45.7	43.8	39.7	37.8	35.8	33.9	27.9	23.8
PSELFEXT	[dB]	60.8	48.8	42.7	40.8	36.7	34.8	32.8	30.9	24.9	20.8

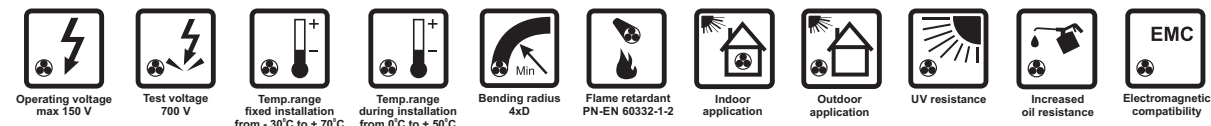
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0014 002	4 x 2 x 0,14c	5.6	24.2	38.5

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## FTP-C-O kat.5e 4x2x0,14c mm<sup>2</sup>

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP-C-O kat.5e 4x2x0,14c mm<sup>2</sup> are patch cables, applied in multimedia computer networks (data, sound and HDTV transmission) including structural wiring of buildings, in industrial and other dedicated networks sensitive to electromagnetic interferences.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 0.14 mm<sup>2</sup> (7x0.16 mm), 26 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating an aluminium-polyester tape and a tinned copper wire braid,
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015, other colours also available.

## FTP-C-O kat.5e 4x2x0,14c mm<sup>2</sup>

### CHARACTERISTICS

Characteristic impedance	100 ± 5 Ω	Minimum shielding attenuation at the frequency f= 30 ÷ 1000 MHz - min.	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	290 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Operating temperature range during operation	from - 30 to + 70°C
Voltage test	700 V rms	Operating temperature range during installation	from 0 to + 50°C
Current-carrying capacity, maximum	175 mA	Minimum bending radius	4 x cable diameter
Velocity of propagation	65 %	Cable combustibility	flame retardant
Return loss, minimum at f=4÷10 MHz	25+5lg(f) dB	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Return loss, minimum at f=10÷20 MHz	25 dB	Oil resistance	PN-EN 60811-404
Return loss, minimum at f=20÷125 MHz	25-8.6lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-6 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	MHz	1	4	10	16	20	31.25	62.5	100
A	dB/100 m	3.2	6.0	9.5	12.1	13.6	17.1	24.8	32

#### Near end cross-talk between pairs, minimum

f	MHz	1	4	8	10	16	20	25	31.25	62.5	100
NEXT	dB	65.3	56.3	51.8	50.3	47.2	45.8	44.3	42.9	38.4	35.3
PSNEXT	dB	62.3	53.3	48.8	47.3	44.2	42.8	41.3	39.9	35.4	32.3
ACR	dB	62.1	50.3	43.3	40.8	35.1	32.2	29.1	25.8	13.6	3.3

#### Far end cross-talk between pairs, minimum

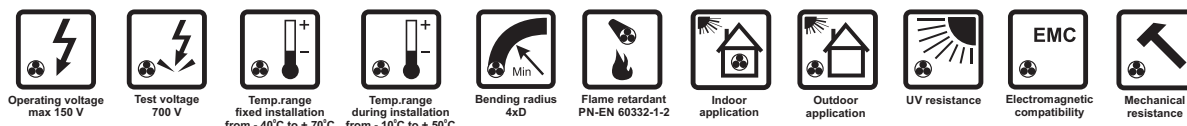
f	MHz	1	4	8	10	16	20	25	31.25	62.5	100
ELFEXT	dB	63.8	51.8	45.7	43.8	39.7	37.8	35.8	33.9	27.9	23.8
PSELFEXT	dB	60.8	48.8	42.7	40.8	36.7	34.8	32.8	30.9	24.9	20.8

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0014 005	4 x 2 x 0,14c	7.6	24.2	69

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## FTP-C-11Y kat.5e 4x2x0,14c mm<sup>2</sup>

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP-C-11Y kat.5e 4x2x0,14c mm<sup>2</sup> are patch cables, applied in multimedia computer networks (data, sound and HDTV transmission) including structural wiring of buildings, in industrial and other dedicated networks sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cable sheath is then made of soft polyurethane (11Y) of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 0.14 mm<sup>2</sup> (7x0.16 mm), 26 AWG,
- polyethylene (PE) insulation coloured: red-black, green-yellow, blue-brown and orange-grey,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating an aluminium-polyester tape and a tinned copper wire braid,
- soft polyurethane (11Y) cable sheath, black, other colours also available.

## FTP-C-11Y kat.5e 4x2x0,14c mm<sup>2</sup>

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f= 30 ÷ 1000 MHz - min.	50 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	290 Ω/km
Insulation resistance, minimum	5000 MΩ·km	Resistance unbalance of any pair of conductors, max.	2 %
Operating voltage	150 V	Operating temperature range during operation	from - 40 to + 70°C
Voltage test	700 V rms	Operating temperature range during installation	from - 10 to + 50°C
Velocity of propagation	65 %	Minimum bending radius	4 x cable diameter
Return loss, minimum at f=4÷10 MHz	25+5lg(f) dB	Cable combustibility	flame retardant
Return loss, minimum at f=10÷20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Return loss, minimum at f=20÷125 MHz	25-8.6lg(f/20)dB	Reference standards	PN-EN 50288-2-2, IEC 61156-6 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
A	[dB/100 m]	3.2	6.5	8.9	9.9	12.3	13.8	15.8	17.7	25.7	33	42

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	125
NEXT	[dB]	65.0	56.0	50	50.3	47	46	44.3	43	38	35	34
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

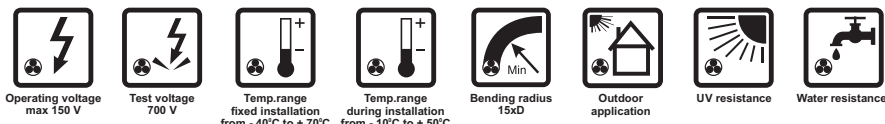
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0506 001	4 x 2 x 0,14c	6.2	22.7	46.5

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## TECHNODATA LAN-UT11 kat.5e 4x2x0,5 mm

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

**TECHNODATA LANUT11 kat.5e 4x2x0,5 mm** cables are intended for multimedia computer networks (data, sound and HDTV transmission), applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cables are suitable for outdoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANUT11n kat.5e 4x2x0,5 mm** - cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

## TECHNODATA LAN-UT11 kat.5e 4x2x0,5 mm

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Return loss, minimum at f=20÷100 MHz	23-10lg(f/20)dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	DC loop resistance at 20°C, maximum	188 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	3 %
Insulation resistance, minimum	5 GΩ·km	Operating temperature range during operation	from - 40 to + 70°C
Operating voltage	150 V	during installation	from -10 to + 50°C
Voltage test	700 V rms	Minimum bending radius	15 x cable diameter
Velocity of propagation	65 %	Reference standards	PN-EN 50288-3-1, IEC 61156-1 ISO/IEC 11801, TIA/EIA 568 A
Return loss, minimum at f=1÷20 MHz	23 dB		

Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
1	2.1	62
4	4.3	53
8	5.9	48
10	6.6	47
16	8.2	44
20	9.2	42
25	10.5	41
31.25	11.8	39
62.50	17.1	35
100	22.0	32

Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0992 001	LAN-UT11	4 x 2 x 0,5	6.1	15.7	40.0

Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0992 002	LAN-UT11n	4 x 2 x 0,5	6.3x12.0	15.7	82.0

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNODATA LAN-T11B kat.5e 4x2x0,5 mm

### LOCAL AREA NETWORK CABLES



Operating voltage  
max 150 V



Test voltage  
700 V



Temp. range  
fixed installation  
from - 40°C to + 70°C



Temp. range  
during installation  
from - 10°C to + 50°C



Bending radius  
15xD



Outdoor  
application



Direct burial



UV resistance



Water resistance



EMC  
compatibility

### APPLICATIONS

**TECHNODATA LANT11B kat.5e 4x2x0,5 mm** cables are intended for multimedia computer networks (data, sound and HDTV transmission), applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANT11n kat.5e 4x2x0,5 mm** - cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

**TECHNODATA LANT11-FOR kat.5e 4x2x0,5 mm** - cables with additional covering which is then made of special oil-resistant, self-extinguishing PVC of higher oxygen index. Cables are dedicated for indoor installations and in locations where oil-resistant and flame retardant is required.

## TECHNODATA LAN-T11B kat.5e 4x2x0,5 mm

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Return loss, minimum at f=20÷100 MHz	25-7 lg(f/20) dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Minimum shielding attenuation at the frequency f=1 ÷ 200 MHz	75 dB
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Shielding impedance at 10 MHz, maximum	10 mΩ/m
Insulation resistance, minimum	150 MΩ·km	DC loop resistance at 20°C, maximum	188 Ω/km
Operating voltage	150 V	Resistance unbalance of any pair of conductors, max.	3 %
Voltage test	700 V rms	Operating temperature range during operation	from - 40 to + 70°C
Velocity of propagation	65 %	during installation	from -10 to + 50°C
Return loss, minimum at f=4÷10 MHz	20+5 lg(f) dB	Minimum bending radius	15 x cable diameter
Return loss, minimum at f=10÷20 MHz	25 dB	Reference standards	PN-EN 50288-2-1, IEC 61156-1 ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
1	2.1	62
4	4.3	53
8	5.9	48
10	6.6	47
16	8.2	44
20	9.2	42
25	10.5	41
31.25	11.8	39
62.50	17.1	35
100	22.0	32

Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0024 014	LAN-T11B	4 x 2 x 0,5	8.7	16.9	71

Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0024 003	LAN-T11n	4 x 2 x 0,5	8.8 x 5.2	17.8	125

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## TECHNODATA LAN-T11 kat.6 4x2x0,57 mm

### LOCAL AREA NETWORK CABLES



Operating voltage  
max 150 V



Test voltage  
700 V



Temp. range  
fixed installation  
from - 40°C to + 70°C



Temp. range  
during installation  
from - 10°C to + 50°C



Bending radius  
15xD



Outdoor  
application



Direct burial



UV resistance



Water resistance



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**TECHNODATA LANT11 kat.6 4x2x0,57 mm** cables are intended for multimedia computer networks (data, sound and HDTV transmission), applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.57 mm (23 AWG),
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core on cross-shaped filler,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANT11-FOR kat.6 4x2x0,57 mm** - cables with additional covering which is then made of special oil-resistant, self-extinguishing PVC of higher oxygen index. Cables are dedicated for indoor installations and in locations where oil-resistant and flame retardant is required.

## TECHNODATA LAN-T11 kat.6 4x2x0,57 mm

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding impedance at 10 MHz, maximum	100 mΩ/m
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	DC loop resistance at 20°C, maximum	188 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	2 %
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Operating voltage	150 V	Phase delay T	534+36/√f ns/100 m
Voltage test	700 V rms	Operating temperature range during operation	from - 40 to + 70°C
Velocity of propagation	65 %	Operating temperature range during installation	from -10 to + 50°C
Return loss, minimum at f=4÷10 MHz	20+5 lg(f) dB	Minimum bending radius	15 x cable diameter
at f=10÷20 MHz	25 dB	Reference standards	PN-EN 50288-5-1, IEC 61156-5
at f=20÷100 MHz	25-7 lg(f/20) dB		ISO/IEC 11801, TIA/EIA 568 A
Minimum shielding attenuation at the frequency f=30 ÷ 250 MHz	40 dB		

Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk between pairs, minimum dB			Far end cross-talk between pairs, minimum dB	
		NEXT	PSNEXT	ACR	ELFEXT	PSELFEXT
1	2.1	66.0	64.0	64.0	66.0	64.0
4	3.8	65.3	63.3	61.0	58.0	55.0
10	6.0	59.3	57.3	53.0	50.0	47.0
16	7.6	56.2	54.2	49.0	45.9	43.0
20	8.5	54.8	52.8	41.3	44.0	41.0
31.25	10.8	51.9	49.9	41.0	40.1	37.1
62.50	15.5	47.4	45.4	32.0	34.1	31.1
100	19.9	44.3	42.3	24.0	30.0	27.0
155	25.3	41.4	39.4	16.0	26.2	23.2
200	29.1	39.8	37.8	11.0	24.0	21.0
250	33.0	38.3	36.3	5.0	22.0	19.0

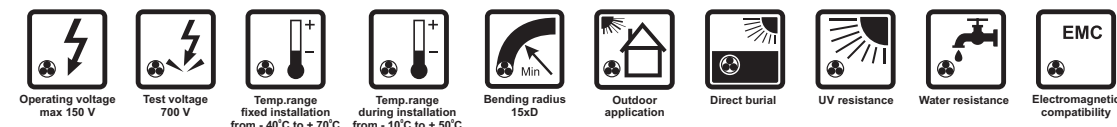
Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0024 019	LAN-T11	4 x 2 x 0,57	9.9	22.2	98

Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0502 002	LAN-T11-FOR	4 x 2 x 0,57	11.9	22.2	147

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNODATA LAN-T15 kat.5 4x2x0,8 mm

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

**TECHNODATA LANT15 kat.5 4x2x0,8 mm** cables are intended for multimedia computer networks (data, sound and HDTV transmission), applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.8 mm,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

## TECHNODATA LAN-T15 kat.5 4x2x0,8 mm

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f=1 ÷ 200 MHz	75 dB
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Shielding impedance at 10 MHz, maximum	10 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	75 Ω/km
Insulation resistance, minimum	150 MΩ·km	Resistance unbalance of any pair of conductors, max.	3 %
Operating voltage	150 V	Operating temperature range during operation	from - 40 to + 70°C
Voltage test	700 V rms	during installation	from -10 to + 50°C
Velocity of propagation	65 %	Minimum bending radius	15 x cable diameter
Return loss, minimum at f=1÷20 MHz	23 dB	Reference standards	PN-EN 50288-2-1, IEC 61156-1 ISO/IEC 11801, TIA/EIA 568 A
Return loss, minimum at f=20÷100 MHz	23-10lg(f/20) dB		

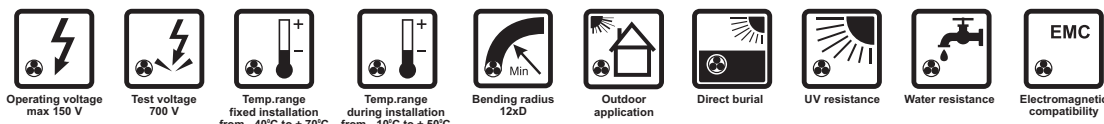
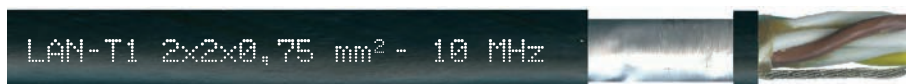
Frequency MHz	Attenuation loss, average dB/100m	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
1	1.3	2.1	62
4	2.4	4.3	53
8	3.3	5.9	48
10	3.8	6.6	47
16	4.7	8.2	44
20	5.2	9.2	42
25	5.8	10.5	41
31.25	6.4	11.8	39
62.50	9.0	17.1	35
100	11.4	22.0	32

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0024 015	4 x 2 x 0,8	11.9	39.8	144

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNODATA LAN-T1 2x2x0,75 mm<sup>2</sup> - 10 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

**TECHNODATA LANT1 2x2x0,75 mm<sup>2</sup>** cable is intended for industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires, cross-section 0.75 mm<sup>2</sup>, meeting requirements of class 5 per PN-EN 60228,
- foam-skin polyethylene (PE) insulation coloured: white and blue, white and orange,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANT1n 2x2x0,75 mm<sup>2</sup>** - cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

**TECHNODATA LANT1-FOR 2x2x0,75 mm<sup>2</sup>** - cables with additional covering which is then made of special oil-resistant, self-extinguishing PVC of higher oxygen index. Cables are dedicated for indoor installations and in locations where oil-resistant and flame retardant is required.

## TECHNODATA LAN-T1 2x2x0,75 mm<sup>2</sup> - 10 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding impedance at 10 MHz, maximum	10 mΩ/m
Mutual capacitance of any pair at 1 kHz, approximate	56 nF/km	DC loop resistance at 20°C, maximum	52 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	3 %
Insulation resistance, minimum	150 MΩ·km	Operating temperature range during operation	from - 40 to + 70°C
Operating voltage	150 V	during installation	from -10 to + 50°C
Voltage test	700 V rms	Minimum bending radius	12 x cable diameter
Velocity of propagation	65 %	Reference standards	PN-EN 50173, ISO/IEC 11801
Return loss, minimum at f=1÷10 MHz	23 dB		
Minimum shielding attenuation at the frequency f=1÷200 MHz	75 dB		

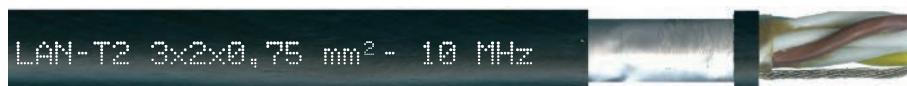
Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
1.0	1.3	41.3
2.0	1.8	36.8
4.0	2.6	32.3
6.0	3.2	29.6
8.0	3.7	27.8
10.0	4.3	26.3

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0024 010	2 x 2 x 0,75	11.4	33.2	116

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNODATA LAN-T2 3x2x0,75 mm<sup>2</sup> - 10 MHz

### LOCAL AREA NETWORK CABLES



Operating voltage  
max 150 V



Test voltage  
700 V



Temp. range  
fixed installation  
from - 40°C to + 70°C



Temp. range  
during installation  
from - 10°C to + 50°C



Bending radius  
12xD



Outdoor  
application



Direct burial



UV resistance



Water resistance



Electromagnetic  
compatibility

### APPLICATIONS

**TECHNODATA LANT2 3x2x0,75 mm<sup>2</sup>** cable is intended for industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 0.75 mm<sup>2</sup>,
- foam-skin polyethylene (PE) insulation coloured: white and brown, white and green, white and yellow,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANT2n 3x2x0,75 mm<sup>2</sup>** - cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

**TECHNODATA LANT2-FOR 3x2x0,75 mm<sup>2</sup>** - cables with additional covering which is then made of special oil-resistant, self-extinguishing PVC of higher oxygen index. Cables are dedicated for indoor installations and in locations where oil-resistant and flame retardant is required.

## TECHNODATA LAN-T2 3x2x0,75 mm<sup>2</sup> - 10 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding impedance at 10 MHz, maximum	10 mΩ/m
Mutual capacitance of any pair at 1 kHz, approximate	56 nF/km	DC loop resistance at 20°C, maximum	52 Ω/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of any pair of conductors, max.	3 %
Insulation resistance, minimum	150 MΩ·km	Operating temperature range during operation	from - 40 to + 70°C
Operating voltage	150 V	during installation	from -10 to + 50°C
Voltage test	700 V rms	Minimum bending radius	12 x cable diameter
Velocity of propagation	65 %	Reference standards	PN-EN 50173, ISO/IEC 11801
Return loss, minimum at f=1÷10 MHz	23 dB		
Minimum shielding attenuation at the frequency f=1÷200 MHz	75 dB		

Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
1.0	1.3	41.3
2.0	1.8	36.8
4.0	2.6	32.3
6.0	3.2	29.6
8.0	3.7	27.8
10.0	4.3	26.3

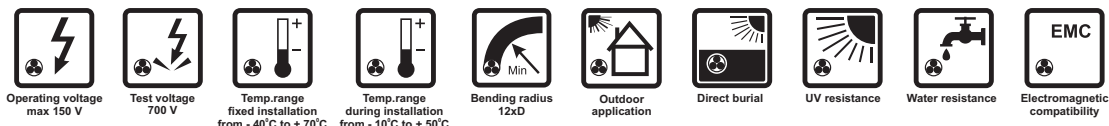
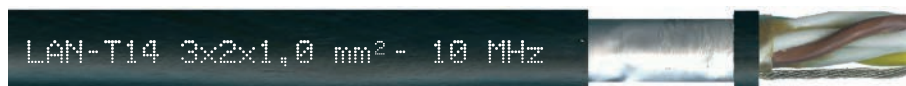
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0024 013	3 x 2 x 0,75	12.5	48.5	142

TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## TECHNODATA LAN-T14 3x2x1,0 mm<sup>2</sup> - 10 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

**TECHNODATA LANT14 3x2x1,0 mm<sup>2</sup>** cable is intended for industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 1.0 mm<sup>2</sup>, meeting requirements of class 2 per PN-EN 60228,
- foam-skin polyethylene (PE) insulation coloured: white and brown, white and green, white and yellow,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANT14n 3x2x1,0 mm<sup>2</sup>** - cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

**TECHNODATA LANT14-FOR 3x2x1,0 mm<sup>2</sup>** - cables with additional covering which is then made of special oil-resistant, self-extinguishing PVC of higher oxygen index. Cables are dedicated for indoor installations and in locations where oil-resistant and flame retardant is required.

## TECHNODATA LAN-T14 3x2x1,0 mm<sup>2</sup> - 10 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Minimum shielding attenuation at the frequency f=1÷200 MHz	75 dB
Mutual capacitance of any pair at 1 kHz, approximate	56 nF/km	Shielding impedance at 10 MHz, maximum	10 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	39 Ω/km
Insulation resistance, minimum	150 MΩ·km	Resistance unbalance of any pair of conductors, max.	3 %
Operating voltage	150 V	Operating temperature range during operation	from - 40 to + 70°C
Voltage test	700 V rms	during installation	from -10 to + 50°C
Velocity of propagation [%]	65 %	Minimum bending radius	12 x cable diameter
Return loss, minimum f=1÷10 MHz	23 dB	Reference standards	PN-EN 50173, ISO/IEC 11801

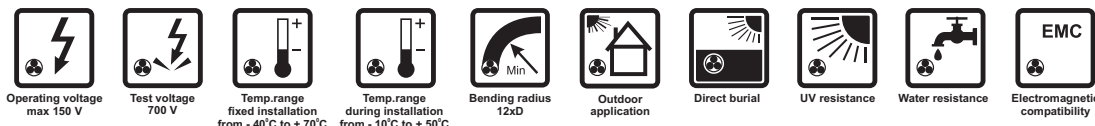
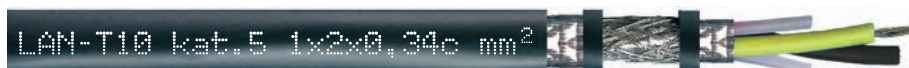
Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
1.0	1.3	41.3
2.0	1.7	36.8
4.0	2.3	32.3
6.0	2.8	29.6
8.0	3.1	27.8
10.0	3.5	26.3

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0024 007	3 x 2 x 1,0	13.4	59.0	178.5

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNODATA LAN-T10 kat.5 1x2x0,34c mm<sup>2</sup>

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

**TECHNODATA LANT10 kat.5 1x2x0,34c mm<sup>2</sup>** cables are intended for multimedia computer networks (data, sound and HDTV transmission), applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires, cross-section 0.34 mm<sup>2</sup>, (7x0.25 mm),
- foam-skin polyethylene (PE) insulation coloured: yellow and black,
- insulated conductors twisted into a pair,
- pair shield incorporating an aluminium-polyester tape under a tinned copper wire braid of coverage bigger than 80%,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### AVAILABLE UPON REQUEST

**TECHNODATA LANT10n kat.5 1x2x0,34c mm<sup>2</sup>** - cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

**TECHNODATA LAN T10-FOR kat.5 1x2x0,34c mm<sup>2</sup>** - cables with additional covering which is then made of special oil-resistant, self-extinguishing PVC of higher oxygen index. Cables are dedicated for indoor installations and in locations where oil-resistant and flame retardant is required.

## TECHNODATA LAN-T10 kat.5 1x2x0,34c mm<sup>2</sup>

### CHARACTERISTICS

Characteristic impedance	150 ± 15 Ω	Minimum shielding attenuation at the frequency f=1÷200 MHz	75 dB
Mutual capacitance at 1 kHz, approximate	30 nF/km	Transfer impedance at 10 MHz, maximum	10 mΩ/m
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	DC loop resistance at 20°C, maximum	114 Ω/km
Insulation resistance, minimum	150 MΩ·km	Resistance unbalance of any pair of conductors, max.	3 %
Operating voltage	150 V	Operating temperature range during operation	from - 40 to + 70°C
Voltage test	700 V rms	during installation	from -10 to + 50°C
Velocity of propagation	65 %	Minimum bending radius	12 x cable diameter
Return loss, minimum at f=1÷20 MHz	23 dB	Reference standards	PN-EN 50288-2-2, IEC 61156-1 ISO/IEC 11801, TIA/EIA 568 A
Return loss, minimum at f=20÷100 MHz	23-10lg(f/20) dB		

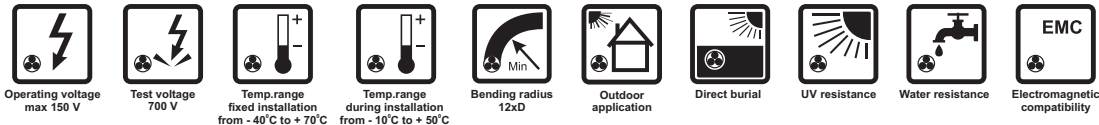
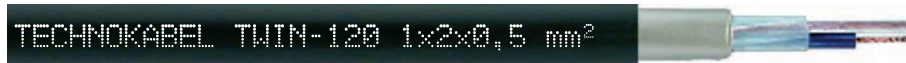
Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk for cable length ≥ 100 m minimum dB
4	2.4	53
10	4.0	47
16	4.9	44
20	5.4	42
31.25	7.6	39
62.50	10.8	35
100	13.0	32

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0024 009	1 x 2 x 0,34c	10.5	25.9	93

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNODATA TWIN-120 1x2x0,5 mm<sup>2</sup>

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

**TECHNODATA TWIN-120 1x2x0.5 mm<sup>2</sup>** cable is intended for industrial and other dedicated networks sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires, cross-section 0.5mm<sup>2</sup>,
- polyethylene (PE) insulation coloured: natural/blue,
- insulated conductors twisted into pair,
- polyethylene (PE) inner sheath,
- moisture barrier and cable shielding made of a plastic laminated aluminium tape longitudinally applied over the inner sheath,
- black polyethylene (PE) cable sheath.

## TECHNODATA TWIN-120 1x2x0,5 mm<sup>2</sup>

### CHARACTERISTICS





Characteristic impedance	120 ± 15 Ω	Return loss, minimum f=1÷10 MHz - min.	18 dB
Mutual capacitance at 1 kHz, approximate	45 nF/km	DC conductor resistance at 20°C, maximum	39 Ω/km
Capacitance unbalance to ground at 1 kHz, max.	1600 pF/km	Resistance unbalance of conductors, max.	3 %
Insulation resistance, minimum	150 MΩ·km	Operating temperature range during operation	from - 40 to + 70°C
Operating voltage	150 V	during installation	from -10 to + 50°C
Voltage test	700 V rms	Minimum bending radius	12 x cable diameter
		Reference standards	IEEE 802.3

Frequency [MHz]	Attenuation loss, maximum [dB/100m]
0.772	0.85
1	0.96
2	1.4
4	1.9
6	2.3
8	2.7
10	3.1

Product No.	Product symbol	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>	mm	kg/km	kg/km
0250 003	TWIN-120	1 x 2 x 0,5	10.5	9.8	101

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## COAXIAL CABLES

				
<b>Cable name</b>	YWL 50 0,45/1,3	RG 174	RG 58	TRIAX 58 A/U
<b>Product No.</b>	0259 004	0221 023	0221 012	0611 001

CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 7x0.15 0.45	FeCu 7x0.16 0.48	CuSn 19x0.18 0.9	CuSn 7x0.32 0.96
<b>Insulation:</b> material diameter [mm]	PE 1.3	PE 1.52	PE 3.0	PE 3.0
<b>Outer conductor:</b> Material and construction	Cu braid	CuSn braid (86%)	CuSn braid	CuSn braid PE insulation, 4.45 mm CuSn braid
<b>Sheath:</b> material colour	PVC black and white	PVC black and white	PVC black and white	PVC yellow
<b>Outer diameter [mm]</b>	2.7	2.8	4.95	6.1




ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [Ω]</b>	50 ± 2	50 ± 2	50 ± 2	50 ± 2
<b>Capacitance [pF/m]</b> at f=1 kHz	97.8	100.0	103.0	100.0
<b>Velocity of propagation [%]</b>	66	66	66	66
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	152 45.3	317 43.0	32.5 13.4	31.0 15.5/14.1
<b>Attenuation [dB/100 m] – average, at frequency [MHz]:</b> 50 100 200 800 1000	21.3 30.4 43.1 90.0 101.7	19.0 30.0 45.0 84.0 92.0	10.5 15.4 22.6 50.1 58.3	10.8 16.1   78.7
<b>Return loss [dB] - min.</b>	20	20	20	20
<b>Shielding attenuation [dB] - min.</b>	40	40	40	40

OTHERS DATA				
<b>Reference standards</b>	MIL-C-17	MIL-C-17/119 G	MIL-C-17/28	DT 22/06/03
<b>Operating temperature range [°C]</b>	-20 ÷ +70	-40 ÷ +70	-40 ÷ +70	-40 ÷ +70
<b>Minimum bending radius [mm]</b>	15	15	25	50
<b>Weight [kg/km]</b>	11.5	12.0	40.0	61.0

APPLIED ABBREVIATIONS			
Cu	: bare copper	PE	: polyethylene
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape

**AVAILABLE OPTIONS AVAILABLE UPON REQUEST**  
Halogen free cables are also available (RG-H; HWD; HWL,...).  
Other colours on request.

## COAXIAL CABLES

			
<b>Cable name</b>	YWLXpek 50 1,35/3,6	YWLeK 50 2,25/7,25	RG 213/U
<b>Product No.</b>	0264 001	0261 002	0221 018

CONSTRUCTION			
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 7x0.45 1.35	Cu 7x0.75 2.25	Cu 7x0.75 2.25
<b>Insulation:</b> material diameter [mm]	foam-skin PE 3.6	PE 7.3	PE 7.3
<b>Outer conductor:</b> Material and construction	Al/PETP tape CuSn braid	Al/PETP/Al tape CuSn braid	Cu braid
<b>Sheath:</b> material colour	PVC black and white	PVC black and white	PVC black
<b>Outer diameter [mm]</b>	5.3	10.1	10.2

ELECTRICAL PARAMETERS AT 20°C			
<b>Characteristic impedance [Ω]</b>	50 ± 2	50 ± 2	50 ± 2
<b>Capacitance [pF/m]</b> at f=1 kHz	87	100	100
<b>Velocity of propagation [%]</b>	78	66	66
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	17.0 15.0	5.7 12.7	5.7 5.8
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b> 50 100 200 800 1000 2400	7.4 10.0 14.0 29.0 33.0 54.0	3.9 5.4 7.9 18.4 21.1 38.5	4.5 6.5 9.4 21.7 21.1 46.1
<b>Return loss [dB] - min.</b>	20	20	20
<b>Shielding attenuation [dB] - min.</b>	40	60	40

OTHERS DATA			
<b>Reference standards</b>	DT 68/04/05	IEC 60096-2A PN-EN 50117	MIL-C-17/74 C
<b>Operating temperature range [°C]</b>	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70
<b>Minimum bending radius [mm]</b>	50	70	70
<b>Weight [kg/km]</b>	38.5	130	154

APPLIED ABBREVIATIONS			
Cu	: bare copper	PE	: polyethylene
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>			
Halogen free cables are also available (RG-H; HWD; HWL,...).			
Other colours on request.			



## COAXIAL CABLES

				
<b>Cable name</b>	2YCCY 75 0,4/2,5	YWD 75 0,5/2,9	YWD 75 0,59/3,7	XWD 75 0,59/3,7
<b>Product No.</b>	0255 003	0253 002	0253 003	0254 003





CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Fe-Cu 1x0.4 0.4	Cu 1x0.5 0.5	Cu 1x0.59 0.59	Cu 1x0.59 0.59
<b>Insulation:</b> material diameter [mm]	PE 2.5	PE 2.9	PE 3.7	PE 3.7
<b>Outer conductor:</b> Material and construction	CuSn braid tape separator CuSn braid	Cu braid	Cu braid	Cu braid
<b>Sheath:</b> material colour	PVC olive with yellow stripe	PVC white	PVC black and white	PE black
<b>Outer diameter [mm]</b>	4.5	5.0	5.5	5.5

ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [Ω]</b>	75 ± 3	75 ± 5	75 ± 3	75 ± 3
<b>Capacitance [pF/m]</b> at f=1 kHz	70.0	69.6	67.0	67.0
<b>Velocity of propagation [%]</b>	66	66	66	66
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	360.0 24/24	86.2 57.6	63.0 27.2	63.0 27.2
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b> 50 100 200 800 1000 2400	11.5 16.0 23.0	9.7 15.0 22.9 50.2 54.0	8.4 13.8 18.5 36.0 40.9 68.5	8.4 13.8 18.5 36.0 40.9 68.5
<b>Return loss [dB] - min.</b>	26	20	20	20
<b>Shielding attenuation [dB] - min.</b>	50	40	40	40

OTHERS DATA				
<b>Reference standards</b>	DT 6/07/01	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117
<b>Operating temperature range [°C]</b>	-20 + +70	-20 + +70	-20 + +70	-40 + +70
<b>Minimum bending radius [mm]</b>	25	30	30	35
<b>Weight [kg/km]</b>	31	29	34	43

<b>APPLIED ABBREVIATIONS</b>				
Cu	: bare copper	PE	: polyethylene	
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape	
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape	
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape	
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>				
Halogen free cables are also available (RG-H; HWD; HWL,...).				
Other colours on request.				

## COAXIAL CABLES

				
<b>Cable name</b>	YWD 75 (T1) 0,59/3,7	RG 59	RG 59 L1/U	RG 59 B/U
<b>Product No.</b>	0253 010	0221 002	0221 022	0221 008





CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 1x0.59 0.59	Fe-Cu 1x0.59 0.59	Fe-Cu 1x0.59 0.59	Cu 1x0.59 0.59
<b>Insulation:</b> material diameter [mm]	PE 3.7	PE 3.7	PE 3.7	PE 3.7
<b>Outer conductor:</b> Material and construction	Cu braid	Cu braid	Cu braid	Cu braid
<b>Sheath:</b> material colour	PVC black and white	PVC black	PVC black	PVC black and white
<b>Outer diameter [mm]</b>	5.9	6.15	6.15	6.15

ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [<math>\Omega</math>]</b>	75 $\pm$ 3	75 $\pm$ 3	75 $\pm$ 3	75 $\pm$ 3
<b>Capacitance [pF/m]</b> at f=1 kHz	67.0	67.0	67.0	67.0
<b>Velocity of propagation [%]</b>	66	66	66	66
<b>DC resistance [m<math>\Omega</math>/m]:</b> inner conductor outer conductor	63.0 16.3	157.5 8.0	157.5 16.3	63.0 8.0
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b> 50 100 200 800 1000 2400	7.4 10.7 15.5 33.7 38.1 55.4	7.7 11.3 16.5 35.6 40.5 59.5	9.0 13.7 18.2 36.3 41.5 65.0	7.7 11.1 16.2 35.6 40.5 59.5
<b>Return loss [dB] - min.</b>	20	20	20	20
<b>Shielding attenuation [dB] - min.</b>	40	40	40	40

OTHERS DATA				
<b>Reference standards</b>	IEC 60096-2A PN-EN 50117	MIL-C-17/29C	MIL-C-17	MIL-C-17/29C
<b>Operating temperature range [°C]</b>	-20 + +70	-40 + +70	-40 + +70	-40 + +70
<b>Minimum bending radius [mm]</b>	35	35	35	35
<b>Weight [kg/km]</b>	43	56	45	56

<b>APPLIED ABBREVIATIONS</b>				
Cu	: bare copper	PE	: polyethylene	
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape	
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape	
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape	
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>				
Halogen free cables are also available (RG-H; HWD; HWL,...).				
Other colours on request.				

## COAXIAL CABLES

				
<b>Cable name</b>	YWDeK 75 0,59/3,7	YWL 75 0,63/3,7	YWL 75 (T1) 0,63/3,7	XWL 75 0,63/3,7
<b>Product No.</b>	0254 002	0259 001	0259 010	0259 006

CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 1x0.59 0.59	Cu 7x0.2 0.6	Cu 7x0.2 0.6	Cu 7x0.2 0.6
<b>Insulation:</b> material diameter [mm]	PE 3.7	PE 3.7	PE 3.7	PE 3.7
<b>Outer conductor:</b> Material and construction	Al/PETP tape CuSn braid	Cu braid	Cu braid	Cu braid
<b>Sheath:</b> material colour	PVC black and white	PVC black and white	PVC black and white	PVC black and white
<b>Outer diameter [mm]</b>	5.8	5.5	5.9	5.5





ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [Ω]</b>	75 ± 3	75 ± 3	75 ± 3	75 ± 3
<b>Capacitance [pF/m]</b> at f=1 kHz	67.4	64.7	64.7	64.7
<b>Velocity of propagation [%]</b>	66	66	66	66
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	63.0 33.6	84.2 27.2	84.2 16.3	84.2 16.3
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b> 50 100 200 800 1000 2400	7.2 10.1 14.7 33.0 38.1 57.2	8.4 11.7 16.8 36.0 40.9 68.5	7.9 11.2 16.3 34.7 39.1 64.4	8.4 11.7 16.8 36.0 40.9 68.5
<b>Return loss [dB] - min.</b>	20	20	20	20
<b>Shielding attenuation [dB] - min.</b>	75	40	40	40

OTHERS DATA				
<b>Reference standards</b>	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117
<b>Operating temperature range [°C]</b>	-20 ÷ +70	-20 ÷ +70	-20 ÷ +70	-40 ÷ +70
<b>Minimum bending radius [mm]</b>	35	30	30	35
<b>Weight [kg/km]</b>	35	33	43	30

APPLIED ABBREVIATIONS				
Cu	: bare copper	PE	: polyethylene	
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape	
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape	
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape	

**AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)**  
Halogen free cables are also available (RG-H; HWD; HWL,...).  
Other colours on request.

## COAXIAL CABLES

				
<b>Cable name</b>	YWDek 75 0,75/4,8	XWDek 75 0,75/4,8	YWLXpek 75 0,45/2,0	59 F 75 0,8/3,8
<b>Product No.</b>	0254 008	0254 007	0263 002	0001 001





CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 1x0.75 0.75	Cu 1x0.75 0.75	Cu 7x0.15 0.45	Cu 1x0.8 0.8
<b>Insulation:</b> material diameter [mm]	PE 4.8	PE 4.8	foam-skin PE 2.0	foam-skin PE 3.8
<b>Outer conductor:</b> Material and construction	Al/PETP/Al tape CuSn braid	Al/PETP/Al tape CuSn braid	Al/PETP tape CuSn braid	Al/PETP/Al tape CuSn braid
<b>Sheath:</b> material colour	PVC black and white	PE black	PVC black and white	PVC black
<b>Outer diameter [mm]</b>	7.3	7.3	3.6	6.0

ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [<math>\Omega</math>]</b>	75 $\pm$ 3	75 $\pm$ 3	75 $\pm$ 3	75 $\pm$ 3
<b>Capacitance [pF/m]</b> at f=1 kHz	67.1	67.1	60.6	55.7
<b>Velocity of propagation [%]</b>	66	66	78	78
<b>DC resistance [m<math>\Omega</math>/m]:</b> inner conductor outer conductor	38.7 13.0	38.7 13.0	176.0 16.6	35.6 23.3
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b>				
50	5.8	5.8	11.8	6.0
100	8.4	8.4	16.9	8.3
200	11.7	11.7	24.4	11.8
800	26.5	26.5	49.6	25.8
1000	30.3	30.3	55.7	29.2
2400	50.9	50.9		46.2
<b>Return loss [dB] - min.</b>	20	20	20	20
<b>Shielding attenuation [dB] - min.</b>	75	75	75	75

OTHERS DATA				
<b>Reference standards</b>	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117
<b>Operating temperature range [°C]</b>	-20 $\pm$ +70	-40 $\pm$ +70	-20 $\pm$ +70	-20 $\pm$ +70
<b>Minimum bending radius [mm]</b>	45	48	18	40
<b>Weight [kg/km]</b>	64.5	64.5	17.5	37

<b>APPLIED ABBREVIATIONS</b>				
Cu	: bare copper	PE	: polyethylene	
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape	
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape	
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape	
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>				
Halogen free cables are also available (RG-H; HWD; HWL,...).				
Other colours on request.				

## COAXIAL CABLES

				
<b>Cable name</b>	YWDXpek (T1) 75 1,0/4,8	YWDXpek 75 1,0/4,8	XWDXpek 75 1,0/4,8	RG 6 L1/U
<b>Product No.</b>	0258 013	0258 010	0258 005	0221 021





CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 1x1.0 1.0	Cu 1x1.0 1.0	Cu 1x1.0 1.0	Cu 1x1.0 1.0
<b>Insulation:</b> material diameter [mm]	foam-skin PE 4.8	foam-skin PE 4.8	foam-skin PE 4.8	foam-skin PE 4.8
<b>Outer conductor:</b> Material and construction	Al/PETP/Al tape CuSn braid density > 77%	Al/PETP/Al tape braid CuSn	Al/PETP/Al tape braid CuSn	Al/PETP/Al tape braid CuSn
<b>Sheath:</b> material colour	PVC black and white	PVC black and white	PE black	PVC black and white
<b>Outer diameter [mm]</b>	6.8	6.8	6.8	6.8

ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [Ω]</b>	75 ± 3	75 ± 3	75 ± 3	75 ± 3
<b>Capacitance [pF/m]</b> at f=1 kHz	57.0	57.0	57.0	57.0
<b>Velocity of propagation [%]</b>	78	78	78	78
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	22.0 8.0	22.0 20.0	22.0 20.0	22.0 21.0
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b> 50 100 200 800 1000 2400	4.6 6.4 9.1 20.2 22.0 38.5	6.0 8.3 11.8 25.8 29.2 46.2	6.0 8.3 11.8 25.8 29.2 46.2	6.0 8.3 11.8 25.8 29.2 46.2
<b>Return loss [dB] - min.</b>	20	20	20	20
<b>Shielding attenuation [dB] - min.</b>	75	75	75	75

OTHERS DATA				
<b>Reference standards</b>	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117	MIL-C-17 PN-EN 50117
<b>Operating temperature range [°C]</b>	-20 ÷ +70	-20 ÷ +70	-40 ÷ +70	-20 ÷ +70
<b>Minimum bending radius [mm]</b>	45	45	60	45
<b>Weight [kg/km]</b>	57	43	37	45

<b>APPLIED ABBREVIATIONS</b>				
Cu	: bare copper	PE	: polyethylene	
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape	
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape	
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape	
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>				
Halogen free cables are also available (RG-H; HWD; HWL,...).				
Other colours on request.				

## COAXIAL CABLES

				
<b>Cable name</b>	11F 75 1,63/7,25	RG 62	RG 71	RG 63
<b>Product No.</b>	0001 002	0221 003	0221 005	0221 001




CONSTRUCTION				
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	Cu 1x1.63 1.0	Fe-Cu 1x0.64 0.64	Fe-Cu 1x0.64 0.64	Fe-Cu 1x0.64 0.64
<b>Insulation:</b> material diameter [mm]	foam-skin PE 7.25	PE- air 3.7	PE- air 3.7	PE- air 7.2
<b>Outer conductor:</b> Material and construction	Al/PETP/Al tape CuSn braid	Cu braid	Cu braid CuSn braid	Cu braid
<b>Sheath:</b> material colour	PVC black and white	PVC black	PE black	PE black
<b>Outer diameter [mm]</b>	10.0	6.15	6.2	10.4

ELECTRICAL PARAMETERS AT 20°C				
<b>Characteristic impedance [Ω]</b>	75 ± 3	93 ± 5	93 ± 5	125 ± 6
<b>Capacitance [pF/m]</b> at f=1 kHz	57.0	44.5	43.4	33.1
<b>Velocity of propagation [%]</b>	78	83	83	84
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	8.0 14.5	138.8 8.0	138.8 4.5	138.8 3.3
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b>				
50	3.1	6.3	6.5	4.3
100	4.4	9.2	9.3	6.2
200	6.4	12.6	13.3	8.8
800	14.0	26.1	28.1	18.1
1000	16.0	30.8	31.8	20.4
2400	29.4			
<b>Return loss [dB] - min.</b>	20	20	20	20
<b>Shielding attenuation [dB] - min.</b>	75	40	50	40

OTHERS DATA				
<b>Reference standards</b>	IEC 60096-2A PN-EN 50117	MIL-C-17/30D	MIL-C-17/90A	MIL-C-17/30D
<b>Operating temperature range [°C]</b>	-20 ÷ +70	-20 ÷ +70	-40 ÷ +70	-40 ÷ +70
<b>Minimum bending radius [mm]</b>	60	35	35	110
<b>Weight [kg/km]</b>	93	56	57	125

<b>APPLIED ABBREVIATIONS</b>				
Cu	: bare copper	PE	: polyethylene	
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape	
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape	
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape	
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>				
Halogen free cables are also available (RG-H; HWD; HWL,...).				
Other colours on request.				

## COAXIAL CABLES

			
<b>Cable name</b>	RG 58 (3) C/U	XzWDXpek 75 1,0/4,8	11F (3) 75 1,63/7,25
<b>Product No.</b>	0221 013	0276 002	0001 004

CONSTRUCTION			
<b>Inner conductor:</b> material number and diameter of wires [mm] diameter [mm]	CuSn 19x0.18 0.9	Cu 1x1.0 1.0	Cu 1x1.63 1.63
<b>Insulation:</b> material diameter [mm]	PE 2.95	foam-skin PE 4.8	foam-skin PE 7.25
<b>Outer conductor:</b> Material and construction	CuSn braid Al/Cop tape	Al/PETP/Al tape CuSn braid Al/Cop tape	Al/PETP/Al tape CuSn braid Al/Cop tape
<b>Sheath:</b> material colour	gel PE black	gel PE black	gel PE black
<b>Outer diameter [mm]</b>	6.8	8.4	11.5

ELECTRICAL PARAMETERS AT 20°C			
<b>Characteristic impedance [Ω]</b>	50 ± 2	75 ± 3	75 ± 3
<b>Capacitance [pF/m]</b> at f=1 kHz	103.0	60.0	60.0
<b>Velocity of propagation [%]</b>	66	78	78
<b>DC resistance [mΩ/m]:</b> inner conductor outer conductor	32.5 13.4	22.0 9.2	8.0 8.5
<b>Attenuation [dB/100 m] - average - at frequency [MHz]:</b> 50 100 200 800 1000 2400	11.4 16.6 24.4 73.0 87.0	4.6 6.4 9.1 20.2 22.0 38.5	3.1 4.4 6.4 14.4 16.7 31.0
<b>Return loss [dB] - min.</b>	20	20	20
<b>Shielding attenuation [dB] - min.</b>	75	75	75

OTHERS DATA			
<b>Reference standards</b>	MIL-C-17	IEC 60096-2A PN-EN 50117	IEC 60096-2A PN-EN 50117
<b>Operating temperature range [°C]</b>	-40 ÷ +70	-40 ÷ +70	-40 ÷ +70
<b>Minimum bending radius [mm]</b>	70	90	120
<b>Weight [kg/km]</b>	58	74	111.0

APPLIED ABBREVIATIONS			
Cu	: bare copper	PE	: polyethylene
Fe-Cu	: copper-clad steel	Al/PETP	: aluminium/polyester (2 layers) tape
Cu-Sn	: tinned copper	Al/PETP/Al.	: aluminium/polyester/aluminium (3 layers) tape
PVC	: polyvinyl chloride	AL/Cop	: copolymer coated aluminium tape
<b>AVAILABLE OPTIONS (AVAILABLE UPON REQUEST)</b>			
Halogen free cables are also available (RG-H; HWD; HWL,...).			
Other colours on request.			

## COAXIAL CABLES

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### APPLICATIONS OF COAXIAL CABLES

#### ■ CABLES FOR TV ANTENNAS ( $Z = 75 \Omega$ ):

YWD 75-0.5/2.9  
YWD and XWD 75-0.59/3.7; YWD 75 (T1) 0.59/3.7  
RG 59; RG 59 B/U; RG 59 L1/U  
YWDek 75-0.59/3.7  
YWL and XWL 75-0.63/3.7; YWL 75 (T1) 0.63/3.7  
59 F 75-0.8/3.8  
YWDek and XWDek 75-0.75/4.8

#### ■ CABLES FOR SATELLITE ANTENNAS AND CABLE TELEVISION ( $Z = 75 \Omega$ ):

YWDXpek (T1) 75-1.0/4.8 (optical coverage of braid > 77%)  
YWDXpek and XWDXpek 75-1.0/4.8; XzWDXpek 75-1.0/4.8  
11 F 75-1.63/7.25 and 11 F 75 (3) 1.63/7.25

#### ■ CABLES FOR COMPUTER NETWORKS

**Z = 50  $\Omega$ :** RG 58; RG 58 (3) C/U  
TRIAx 58 A/U  
RG 213/U  
YWLek 50-2.25/7.25

**Z = 93  $\Omega$ :** RG 62 and RG 71

**Z = 125  $\Omega$ :** RG 63

#### ■ CABLES FOR ELECTRONIC EQUIPMENT

**Z = 50  $\Omega$ :** YWL 50-0.45/1.3; RG 174; YWLXpek 50 1.35/3.6

**Z = 75  $\Omega$ :** 2YCCY 75 0.4/2.5; YWLXpek and XWLXpek 75-0.45/2.0

#### ■ CABLES FOR RADIO COMMUNICATION ANTENNAS ( $Z = 50 \Omega$ ):

RG 58  
RG 213/U  
YWLXek 50-2.25/7.25

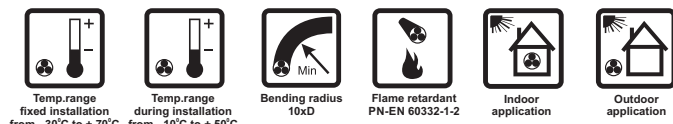
#### ■ CABLES FOR INDUSTRIAL TELEVISION (CCTV) ( $Z = 75 \Omega$ ):

RG 59; RG 59 B/U; RG 59 L1/U  
YWDXpek and XWDXpek 75-1.0/4.8; XzWDXpek 75-1.0/4.8  
11 F 75-1.63/7.25 and 11 F 75 (3) 1.63/7.25



## PS-Y-29

### SPECIAL CABLES



### APPLICATIONS

Hybrid cables **PS-Y-29** intended for operation in CCTV networks.

Cables are equipped with coax **WD 75-0,59/3,7** for visual signal transmission and a group of insulated conductors for camera power supply and control signals transmission.

The cables are suitable for fixed indoor and outdoor installations.

### CONSTRUCTION

#### coaxial cable **WD 75-0,59/3,7**

- soft solid copper conductor, diameter 0.59 mm,
- polyethylene (PE) insulation, diameter 3.7 mm,
- copper wire braid,

#### LiY wires

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code in accordance with DIN VDE 47100,
- insulated conductors twisted into pair,
- pair wrapped in polyester tape,

#### PS-Y-29 cable

- white (RAL 9010) PVC cable sheath, (8 shape) extruded on the parallel arranged coaxial and pair of insulated conductors, other colours also available.

## PS-Y-29

### CHARACTERISTICS

#### Coaxial cable WD 75-0,59/3,7

Characteristic impedance	75 ± 3 Ω
Capacitance at 1 kHz, approximate	67 nF/km
Velocity of propagation	66 %
DC resistance at 20°C, approximate	
inner conductor	63 Ω/km
outer conductor	27.2 Ω/km
Attenuation loss [dB/100m] average - at frequency [MHz]:	
1	1.0
50	7.4
100	10.5
200	15.1
300	18.8
500	24.8
800	32.0
1000	36.3
1500	45.6
2000	55.7
2400	56.9

#### LiY wires

Operating voltage U <sub>o</sub> /U	300/300 V
Operating voltage, peak value	500 V
Voltage test	1500 V rms
DC conductor resistance at 20°C, maximum:	
conductor 0.50 mm <sup>2</sup>	39.0 Ω/km
conductor 0.75 mm <sup>2</sup>	26.0 Ω/km
conductor 1.0 mm <sup>2</sup>	19.5 Ω/km
Insulation resistance, minimum	20 MΩ·km
Inductance, approximate	0.7 mH/km

#### Cable PS-Y-29

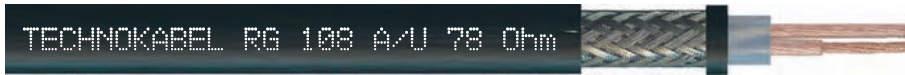
Operating temperature range	
during operation	from - 30 to + 70°C
during installation	from - 10 to + 50°C
Minimum bending radius	10 x cable diameter
Cable combustibility	flame retardant
Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Reference standards	
coaxial cable	PN-91/T-90601, IEC 61156-1
LiY wires	DIN VDE 0812

Product No.	Cable type	Construction	Outer dimensions (appr.)	Copper index	Cable weight (appr.)
			mm	kg/km	kg/km
0211 013	PS-Y-29-A	Y(WD 75-0,59/3,7 + 2 x LiY 0,5 mm <sup>2</sup> )	5.9x11.3	25.5	77.0
0211 014	PS-Y-29-B	Y(WD 75-0,59/3,7 + 2 x LiY 0,75 mm <sup>2</sup> )	5.9x11.8	30.5	85.5
0211 021	PS-Y-29-C	Y(WD 75-0,59/3,7 + 2 x LiY 1,0 mm <sup>2</sup> )	5.9x12.0	34.0	92.0

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## RG 108 A/U 78Ω

### DATA TRANSMISSION CABLE



Temp. range  
operating  
- 30°C to + 70°C



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

Cable **RG 108 A/U** intended for operation in IBM cash registers.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires, cross-section 0.5mm<sup>2</sup> (7x0.3 mm),
- polyethylene (PE) insulation - diameter 2.0 mm,
- insulated conductors twisted into pair,
- pair wrapped in polyester tape,
- tinned copper wire braid shield, density of coverage bigger than 85%,
- PVC cable sheath, colours on request.

### CHARACTERISTICS

Characteristic impedance	78 ± 7 Ω	Minimum bending radius:	
Mutual capacitance at 1 kHz,	68 ± 5 nF/km	single	30 mm
DC conductor resistance at 20°C, approximate	34.5 Ω/km	multiple	90 mm
DC screen resistance at 20°C, approximate	18.0 Ω/km	Cable combustibility	flame retardant
Operating temperature range:	from - 30 to + 70 °C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	MIL-C-17/45ETIA/EIA 568 A

#### Attenuation loss, approximate

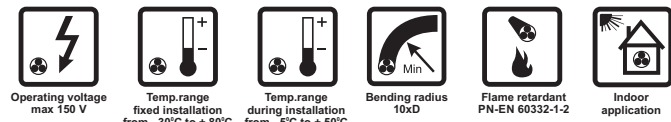
f	MHz	1	2	3	5	7	10	20	30	50	70	100
a	dB/100 m	2.5	3.7	4.6	6.1	7.2	8.5	12.1	14	17.2	20.2	26.0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0221 016	1 x 2 x 0,5c	6.0	22.0	45

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YTKSY

### TELECOMMUNICATION SWITCHBOARD CABLES



## APPLICATIONS

YTKSY are multipair cables intended for interconnections between switching and transmission equipment, for analogue or digital data transmission in industrial electronics and control applications.

The cables are suitable for fixed indoor installations.

## CONSTRUCTION

- bare annealed copper single wire round conductors of diameter 0.5; 0.6; 0.8 i 1.0 mm,
- PVC insulation - identification colour code according to PN-92/T-90321,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- PVC cable sheath, white RAL 9010, other colours also available.

## AVAILABLE UPON REQUEST

HTKSH - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YTKSY

### CHARACTERISTICS

Conductor diameter	mm	0.5	0.6	0.8	1.0
DC conductor resistance at 20°C, maximum	Ω/km	195.6	135.8	75.0	48.0
Voltage test, min.					
– AC voltage for 60s	V rms	1000	1000	1500	1500
– DC voltage	V	1500	1500	2250	2250
Mutual capacitance of pair at 1 kHz					
– maximum	nF/km	120	120	120	120
– average		100	100	95	95

Operating voltage	150 V	Operating temperature range	
Insulation resistance, minimum	200 MΩ·km	during operation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	during installation	from - 5 to + 50°C
		Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-92/T-90321, PN-92/T-90320

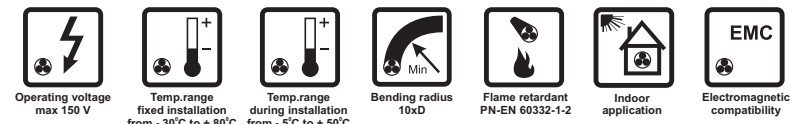
Product No.	Number of pairs (quads) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm			
0413 002	1 x 2 x 0,5	3.2	3.8	13.9
0413 021	1 x 4 x 0,5	3.5	7.7	20.5
0413 003	2 x 2 x 0,5	4.4	7.7	23.5
0413 004	3 x 2 x 0,5	4.6	11.5	29.5
0413 005	4 x 2 x 0,5	5.0	15.4	36.0
0413 006	5 x 2 x 0,5	5.5	19.2	43.0
0413 007	6 x 2 x 0,5	5.9	23.0	49.0
0413 008	7 x 2 x 0,5	5.9	26.9	54.0
0413 010	10 x 2 x 0,5	7.1	38.4	75.0
0413 011	12 x 2 x 0,5	7.4	46.1	84.0
0413 012	14 x 2 x 0,5	8.1	54.0	99.0
0413 013	21 x 2 x 0,5	9.5	81.0	139.0
0413 014	25 x 2 x 0,5	10.2	96.0	162.0
0413 015	30 x 2 x 0,5	11.3	115.0	195.0
0413 052	1 x 4 x 0,6	4.0	10.9	26.5
0413 049	3 x 2 x 0,6	5.0	16.1	37.0
0413 050	5 x 2 x 0,6	6.0	26.9	55.0

Product No.	Number of pairs (quads) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm			
0413 051	10 x 2 x 0,6	8.0	54.0	100.0
0413 053	14 x 2 x 0,6	9.1	76.0	127.5
0413 024	1 x 2 x 0,8	4.2	9.6	25.5
0413 028	1 x 4 x 0,8	4.7	19.2	40.0
0413 025	2 x 2 x 0,8	6.1	19.2	45.0
0413 026	3 x 2 x 0,8	6.5	28.8	59.0
0413 042	4 x 2 x 0,8	7.1	38.4	74.0
0413 027	5 x 2 x 0,8	8.0	48.0	93.0
0413 044	10 x 2 x 0,8	10.5	96.0	166.0
0413 054	12 x 2 x 0,8	11.7	115.8	203.0
0413 046	21 x 2 x 0,8	14.1	202.0	328.0
0413 055	24 x 2 x 0,8	15.8	231.6	375.5
0413 056	30 x 2 x 0,8	17.4	289.5	458.0
0413 057	40 x 2 x 0,8	19.9	386.0	603.0
0413 029	1 x 2 x 1,0	4.6	15.0	32.0
0413 048	1 x 4 x 1,0	5.1	28.8	52.0

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YTKSYekw

### TELECOMMUNICATIONSWITCHBOARDCABLES



## APPLICATIONS

YTKSYekw are multipair cables intended for interconnections between switching and transmission equipment, for analogue or digital data transmission in industrial electronics and control applications.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for fixed indoor installations.

## CONSTRUCTION

- bare annealed copper single wire round conductors of diameter 0.5; 0.6; 0.8 i 1.0 mm,
- PVC insulation - identification colour code according to PN-92/T-90321,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- PVC cable sheath, white RAL 9010, other colours also available

## AVAILABLE UPON REQUEST

HTKSHekw - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YTKSYekw

### CHARACTERISTICS

Conductor diameter	mm	0.5	0.6	0.8	1.0
DC conductor resistance at 20°C, maximum	Ω/km	195.6	135.8	75.0	48.0
Voltage test					
– AC voltage for 60s	V rms	1000	1000	1500	1500
– DC voltage	V	1500	1500	2250	2250
Mutual capacitance of pair at 1 kHz					
– maximum	nF/km	120	120	120	120
– average		110	110	100	100

Operating voltage	150 V	Operating temperature range	
Insulation resistance, minimum	200 MΩ·km	during operation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	during installation	from - 5 to + 50°C
		Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-92/T-90321, PN-92/T-90320

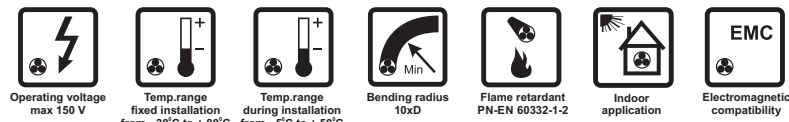
Product No.	Number of pairs (quads) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0415 001	1 x 2 x 0,5	3.3	5.0	16.1
0415 018	1 x 4 x 0,5	3.6	8.9	23.0
0415 002	2 x 2 x 0,5	4.5	8.9	26.0
0415 003	3 x 2 x 0,5	4.7	12.7	31.5
0415 004	4 x 2 x 0,5	5.1	16.6	38.0
0415 005	5 x 2 x 0,5	5.6	20.1	45.0
0415 006	6 x 2 x 0,5	6.0	24.2	51.0
0415 007	7 x 2 x 0,5	6.3	27.6	61.0
0415 008	10 x 2 x 0,5	7.2	39.6	75.0
0415 009	12 x 2 x 0,5	7.7	47.3	90.0
0415 010	14 x 2 x 0,5	8.2	55.0	101.0
0415 011	21 x 2 x 0,5	9.6	82.0	141.0
0415 012	25 x 2 x 0,5	10.3	97.0	163.0
0415 051	30 x 2 x 0,5	12.3	114.3	210.0
0415 021	1 x 4 x 0,6	3.9	12.0	28.0
0415 039	3 x 2 x 0,6	5.1	17.3	39.5
0415 019	5 x 2 x 0,6	6.1	28.1	56.0

Product No.	Number of pairs (quads) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0415 050	10 x 2 x 0,6	8.1	55.0	102.0
0415 020	14 x 2 x 0,6	9.0	76.0	133.0
0415 022	1 x 2 x 0,8	4.3	10.8	28.0
0415 034	1 x 4 x 0,8	4.8	20.4	42.0
0415 023	2 x 2 x 0,8	6.2	20.4	48.0
0415 024	3 x 2 x 0,8	7.2	30.2	68.0
0415 025	4 x 2 x 0,8	7.2	39.6	77.0
0415 026	5 x 2 x 0,8	8.1	49.2	95.0
0415 027	10 x 2 x 0,8	10.6	97.0	168.0
0415 028	12 x 2 x 0,8	11.7	117.0	207.0
0415 029	21 x 2 x 0,8	14.5	203.0	335.0
0415 030	24 x 2 x 0,8	15.4	232.0	375.0
0415 031	30 x 2 x 0,8	16.9	289.0	460.0
0415 032	40 x 2 x 0,8	19.4	385.0	600.0
0415 035	1 x 2 x 1,0	4.7	16.2	34.5
0415 036	1 x 4 x 1,0	5.3	31.2	55.0

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A.reserves the right to change specifications without prior notice.

## YTKSYekp

### TELECOMMUNICATIONSWITCHBOARDCABLES



## APPLICATIONS

YTKSYekp are multipair, pair and overall shielded cables intended for interconnections between switching and transmission equipment, for analogue or digital data transmission in industrial electronics and control applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for fixed indoor installations.

## CONSTRUCTION

- bare annealed copper single wire round conductors of diameter 0.5; 0.6; 0.8 i 1.0 mm,
- PVC insulation - identification colour code according to PN-92/T-90321,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- shielded pairs laid-up in layers,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- PVC cable sheath, white RAL 9010, other colours also available.

## AVAILABLE UPON REQUEST

**HTKSHekp** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.



## YTKSYekp

### CHARACTERISTICS

Conductor diameter	mm	0.5	0.6	0.8
DC conductor resistance at 20°C, maximum	Ω/km	195.6	135.8	75.0
Voltage test				
– AC voltage for 60s	V rms	1000	1000	1500
– DC voltage	V	1500	1500	2250

Operating voltage	150 V	Operating temperature range during operation	from - 30 to + 80°C
Insulation resistance, minimum	200 MΩ·km	during installation	from - 5 to + 50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-92/T-90321, PN-92/T-90320

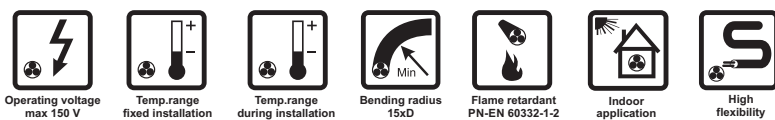
Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm			
0414 001	2 x 2 x 0,5	5.1	8.7	28.5
0414 002	3 x 2 x 0,5	5.3	12.5	35.0
0414 013	4 x 2 x 0,5	5.6	16.3	41.0
0414 010	5 x 2 x 0,5	6.1	20.1	48.5
0414 009	6 x 2 x 0,5	6.5	23.8	55.5
0414 011	7 x 2 x 0,5	6.2	27.6	59.5
0414 003	10 x 2 x 0,5	8.7	38.9	85.5
0414 004	12 x 2 x 0,5	9.8	46.4	105.0

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm			
0414 005	21 x 2 x 0,5	10.9	80.4	158.0
0414 006	2 x 2 x 0,6	5.6	12.1	30.0
0414 007	12 x 2 x 0,6	11.4	66.4	142.0
0414 012	2 x 2 x 0,8	6.6	20.5	49.5
0414 014	3 x 2 x 0,8	7.0	30.2	64.0

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YTLY

### TELECOMMUNICATION FLEXIBLE WIRES



### APPLICATIONS

YTLY are wires intended for fixed connections inside the telecommunication devices and for satellite antennas control.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request),
- PVC insulation - identification colour code according to PN-91/E-90206,
- insulated conductors laid-up in a cable core,
- PVC cable sheath, white RAL 9010, other colours also available.

### AVAILABLE UPON REQUEST

11YTLY – polyurethane sheathed wires of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to bacteria and ultraviolet radiation.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.22	0.35	0.50	0.75
DC conductor resistance at 20°C, maximum	Ω/km	92.5	60.7	40.3	26.9
Voltage test					
– AC voltage for 60s	V rms	1000	1500	1500	1500
– DC voltage	V	1500	2250	2250	2250

Operating voltage	150 V	Operating temperature range during operation	from - 30 to + 70°C
Insulation resistance, minimum	200 MΩ·km	during installation	from - 5 to + 50°C
		Minimum bending radius	15 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-92/T-90200, PN-92/T-90203, PN-91/T90206

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0419 013	1x0,5 + 7x0,35	6.0	28.3	59.2
0419 014	2x0,5 + 2x0,22	4.0	13.8	25.7
0419 022	2x0,5 + 3x0,22	4.2	15.9	29.7

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0419 015	2x0,5 + 4x0,22	5.0	18.0	37.0
0419 032	2x0,5 + 8x0,22	6.4	26.5	60.0
0419 016	2x0,75 + 2x0,22	6.4	18.6	52.9

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YTLYp

### TELECOMMUNICATION FLEXIBLE WIRES



### APPLICATIONS

YTLY are wires intended for fixed connections inside the telecommunication devices and for satellite antennas control.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request),
- PVC insulation - identification colour code according to PN-91/E-90206,
- insulated conductors laid-up in a cable core,
- PVC cable sheath, white RAL 9010, other colours also available.

### AVAILABLE UPON REQUEST

11YTLY – polyurethane sheathed wires of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to bacteria and ultraviolet radiation.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.22	0.35	0.50	0.75
DC conductor resistance at 20°C, maximum	Ω/km	92.5	60.7	40.3	26.9
Voltage test					
– AC voltage for 60s	V rms	1000	1500	1500	1500
– DC voltage	V	1500	2250	2250	2250

Operating voltage	150 V	Operating temperature range	
Insulation resistance, minimum	200 MΩ·km	during operation	from - 30 to + 70°C
		during installation	from - 5 to + 50°C
		Minimum bending radius	15 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-92/T-90200, PN-92/T-90203, PN-91/T90206

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0419 013	1x0,5 + 7x0,35	6.0	28.3	59.2
0419 014	2x0,5 + 2x0,22	4.0	13.8	25.7
0419 022	2x0,5 + 3x0,22	4.2	15.9	29.7

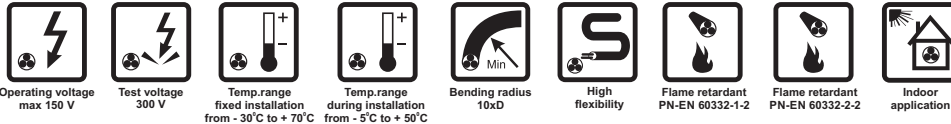
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0419 015	2x0,5 + 4x0,22	5.0	18.0	37.0
0419 032	2x0,5 + 8x0,22	6.4	26.5	60.0
0419 016	2x0,75 + 2x0,22	6.4	18.6	52.9

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TLWY

### RIBBON CABLES



### APPLICATIONS

TLWY are ribbon cables designed for control cabinets, electronic devices and others as interconnection cables for electronic modules, equipment and instruments.

Cables are designed to allow easy separation of any number of wires.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - colours of insulation and their sequence according to the following table, other combinations of colours are available on request:

No. wires	colour of insulation
1 8 15 22	red
2 9 16 23	blue
3 10 17 24	black
4 11 18 25	white
5 12 19 26	green
6 13 20 27	brown
7 14 21 28	yellow

- insulated conductors arranged parallel to each other and glued together.

## TLWY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.124	0.14	0.22	0.35	0.5	0.75	1.0	1.5
Operating voltage, peak value	V	150	150	150	150	300	300	300	300
Voltage test	V rms	500	500	1000	1500	1500	1500	2000	2000
Insulation resistance, minimum	MΩ·km	50	200	200	200	200	200	200	200
DC conductor resistance at 20°C, maximum	Ω/km	155	144	89.3	57.2	38.8	25.8	19.1	13.3

Operating temperature range  
for fixed installation from - 30 to + 70°C  
for movable installation from - 5 to + 50°C

Minimum bending radius 10 x wire height  
Cable combustibility flame retardant  
Combustibility tests PN-EN 60332-1-2, PN-EN 60332-2-2  
IEC 60332-1-2, IEC 60332-2-2  
Reference standards PN-91/T-90211

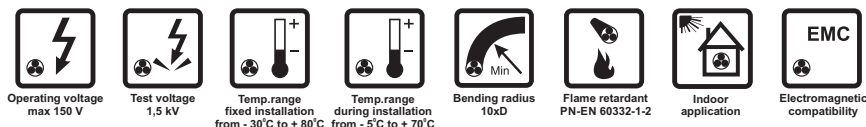
Product No.	Number of conductors x conductor cross-section	Outer dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0240 027	2 x 0,124	1.0 x 2.0	2.38	4.4
0240 061	3 x 0,124	1.0 x 3.0	3.57	6.5
0240 029	4 x 0,124	1.0 x 4.0	4.76	8.7
0240 030	5 x 0,124	1.0 x 5.0	5.95	10.9
0240 032	6 x 0,124	1.0 x 6.0	7.14	13.1
0240 033	7 x 0,124	1.0 x 7.0	8.33	15.2
0240 036	8 x 0,124	1.0 x 8.0	9.52	17.4
0240 037	9 x 0,124	1.0 x 9.0	10.7	19.6
0240 039	10 x 0,124	1.0 x 10.0	11.9	21.8
0240 040	11 x 0,124	1.0 x 11.0	13.1	23.9
0240 041	12 x 0,124	1.0 x 12.0	14.3	26.1
0240 001	7 x 0,14	1.05 x 7.35	9.4	16.7
0240 002	8 x 0,14	1.05 x 8.4	10.8	19.1
0240 003	10 x 0,14	1.05 x 10.5	13.4	23.8
0240 004	12 x 0,14	1.05 x 12.6	16.1	28.6
0240 062	2 x 0,22	1.05 x 2.1	4.22	5.7
0240 063	3 x 0,22	1.05 x 3.15	6.34	8.6
0240 043	4 x 0,22	1.05 x 4.2	8.45	11.4
0240 044	5 x 0,22	1.05 x 5.15	10.6	14.3
0240 046	6 x 0,22	1.05 x 6.3	12.7	17.1
0240 047	7 x 0,22	1.05 x 7.35	14.8	20.0
0240 048	8 x 0,22	1.05 x 8.4	16.9	22.9
0240 049	9 x 0,22	1.05 x 9.45	19.0	25.7
0240 050	10 x 0,22	1.05 x 10.5	21.1	28.6
0240 053	12 x 0,22	1.05 x 12.6	25.3	34.3
0240 064	15 x 0,22	1.05 x 15.75	31.7	42.9
0240 054	20 x 0,22	1.05 x 21.0	42.2	57.2
0240 065	24 x 0,22	1.05 x 25.2	50.7	68.6

Product No.	Number of conductors x conductor cross-section	Outer dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0240 066	2 x 0,35	1.4 x 2.8	6.72	9.2
0240 056	3 x 0,35	1.4 x 4.2	10.1	13.8
0240 005	4 x 0,35	1.4 x 5.6	13.4	18.7
0240 006	5 x 0,35	1.4 x 7.0	16.8	23.0
0240 007	6 x 0,35	1.4 x 8.4	20.2	27.7
0240 008	7 x 0,35	1.4 x 9.8	23.5	32.3
0240 009	8 x 0,35	1.4 x 11.2	26.9	37.4
0240 010	9 x 0,35	1.4 x 12.6	30.2	41.5
0240 011	10 x 0,35	1.4 x 14.0	33.6	46.2
0240 012	11 x 0,35	1.4 x 15.4	37.0	50.8
0240 013	12 x 0,35	1.4 x 16.8	40.3	56.1
0240 014	20 x 0,35	1.4 x 28.0	67.2	93.6
0240 067	24 x 0,35	1.4 x 37.9	80.6	112.3
0240 016	4 x 0,50	1.94 x 7.76	19.2	32.2
0240 017	6 x 0,50	1.94 x 11.64	28.8	47.4
0240 018	8 x 0,50	1.94 x 15.52	38.4	63.2
0240 019	10 x 0,50	1.94 x 19.40	48.0	79.3
0240 020	12 x 0,50	1.94 x 23.28	57.6	95.2
0240 021	4 x 0,75	2.2 x 8.8	28.8	43.4
0240 022	6 x 0,75	2.2 x 13.2	43.2	65.1
0240 023	8 x 0,75	2.2 x 17.6	57.6	86.8
0240 024	12 x 0,75	2.2 x 26.4	86.4	130.1
0240 025	4 x 1,0	2.3 x 9.2	38.4	53.6
0240 026	12 x 1,0	2.3 x 27.6	115.2	161.0

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YnTKSY, YnTKSYekw, YnTKSXekw

### FIRE ALARM CABLES



### APPLICATIONS

YnTKSY, YnTKSYekw and YnTKSXekw cables are intended for fire alarm and fire automatic control systems also for data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION- YnTKSY and YnTKSYekw

- bare annealed copper single wire round conductors of diameter 0.8 mm, 1.0 mm, 1.4 mm and 1.5 mm,
- PVC insulation - colours in accordance with PN-92/T-90321 standard,
- insulated conductors twisted into pairs or a quad,
- pairs laid-up into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire in YnTKSYekw cable,
- special (oxygen index bigger than 29%) PVC cable sheath, red RAL 3000.

### CONSTRUCTION- YnTKSXekw

- bare annealed copper single wire round conductors of diameter 1.05 mm,
- polyethylene (PE) insulation - colours in accordance with PN-92/T-90321 standard,
- żyły izolowane skręcone w pary lub w czwórkę,
- insulated conductors twisted into pairs or a quad,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire,
- special (oxygen index bigger than 29%) PVC cable sheath, red RAL 3000.

## YnTKSY, YnTKSYekw, YnTKSXekw

### CHARACTERISTICS

Cable type		YnTKSY				YnTKSYekw				YnTKSXekw	
		0.8	1.0	1.4	1.5	0.8	1.0	1.4	1.5	1.05	
Conductor diameter	mm	0.8	1.0	1.4	1.5	0.8	1.0	1.4	1.5	1.05	
DC loop resistance at 20°C, maximum	Ω/km	75	48	24	24	75	48	24	24	48	
Capacitance between conductors at 1 kHz	nF/km	– maximum	120	120	120	120	200	200	200	200	65
		– average	100	100	100	100	140	140	140	140	63

Operating voltage	150 V	Operating temperature range during operation	from - 30 to + 80°C
Voltage test	1500 V rms	during installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0,7 mH/km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2
		Reference standards	AT-0603-0048/2011/2016 WT-TK-4 PN - 92/T-90320 PN - 92/T-90321

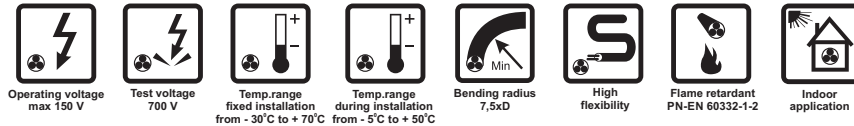
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
YnTKSY				
0381 001	1x2x0,8	4.2	10.0	24.5
0381 007	1x4x0,8	4.8	20.0	39.0
0381 002	2x2x0,8	6.2	19.3	40.0
0381 003	3x2x0,8	6.5	30.0	57.5
0381 005	4x2x0,8	7.1	40.0	72.0
0381 006	5x2x0,8	8.6	50.0	86.0
0381 014	6x2x0,8	8.7	60.0	106
0381 021	7x2x0,8	8.7	67.0	119
0381 015	10x2x0,8	10.2	96.0	161
0381 008	1x2x1,0	4.8	15.5	32.0
0381 009	2x2x1,0	7.7	30.0	65.6
0381 017	5x2x1,0	9.9	75.4	135
0381 018	5x2x1,5	15.5	170	313
YnTKSYekw				
0382 001	1x2x0,8	4.4	11.0	27.0
0382 008	1x4x0,8	5.0	21.0	42.0
0382 004	2x2x0,8	6.4	21.5	46.5
0382 003	3x2x0,8	6.7	31.5	60.5
0382 005	4x2x0,8	7.3	41.5	74.5
0382 006	5x2x0,8	8.0	52.0	90.0

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0382 024	7x2x0,8	9.1	69.5	125
0382 007	10x2x0,8	10.8	102	165
0382 010	21x2x0,8	14.7	203	327
0382 018	25x2x0,8	15.9	241	382
0382 009	1x2x1,0	5.2	17.0	36.5
0382 015	2x2x1,0	7.9	33.0	70.0
0382 027	3x2x1,0	8.4	46.7	92.0
0382 019	5x2x1,0	10.1	76.6	138
0382 031	10x2x1,0	13.5	153	253
YnTKSXekw				
0380 001	1x2x1,05	6.7	18.5	48.5
0380 003	1x4x1,05	7.7	35.5	78.5
0380 005	1x2x1,4	7.2	31.2	66.8
0382 006	1x2x1,5	7.4	36.6	73.2

Other diameters and conductor counts available on request.  
TECHNOKABEL S.A reserves the right to change specifications without prior notice.

## SCYY

### CABLES FOR ALARM AND SECURITY SYSTEMS



### APPLICATIONS

**SCYY** are cables intended for connection of sensors, detectors, receptors and other signalling devices, in control loops of internal alarm systems.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires, cross-section  $0.22\text{mm}^2$  (7x0.2 mm),
- PVC insulation - identification colour code: red, blue, yellow, black, white, green, orange, brown, grey, pink,
- insulated conductors laid-up into a cable core,
- PVC cable sheath, white RAL 9010, other colours also available.

### CHARACTERISTICS

Conductor cross-section	0.22 mm <sup>2</sup>	Operating temperature range	
DC conductor resistance at 20°C,		for fixed installation	from - 30 to + 70°C
maximum	85 Ω/km	for movable installation	from - 5 to + 70°C
Operating voltage	150 V	Minimum bending radius	7.5 x cable diameter
Voltage test	700 V rms	Cable combustibility	flame retardant
Insulation resistance, minimum	50 MΩ·km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	BS 4737 section 3.30

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0224 001	2 x 0,22	3.0	4.2	14.5
0224 002	3 x 0,22	3.2	6.3	15.0
0224 003	4 x 0,22	3.4	8.4	21.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0224 004	6 x 0,22	4.0	12.7	29.5
0224 005	8 x 0,22	4.3	16.9	37.0
0224 007	10 x 0,22	5.0	21.1	44.0

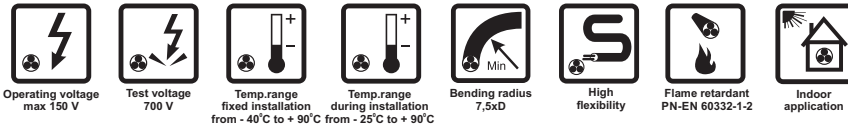
Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## SCYwYw

### CABLES FOR ALARM AND SECURITY SYSTEMS



### APPLICATIONS

**SCYwYw** are heat resistant cables intended for connection of sensors, detectors, receptors and other signalling devices, in control loops of internal alarm systems.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires, cross-section  $0.22\text{mm}^2$  (7x0.2 mm),
- heat resistant PVC insulation - identification colour code: red, blue, yellow, black, white, green, orange, brown, grey, pink,
- insulated conductors laid-up into a cable core,
- heat resistant PVC cable sheath, white RAL 9010, other colours also available.

### CHARACTERISTICS

Conductor cross-section	0,22 mm <sup>2</sup>	Operating temperature range	
DC conductor resistance at 20°C,		for fixed installation	from - 40 to + 90°C
maximum	85 Ω/km	for movable installation	from - 25 to + 90°C
Operating voltage	150 V	Minimum bending radius	7.5 x cable diameter
Voltage test	700 V rms	Cable combustibility	flame retardant
Insulation resistance, minimum	50 MΩ·km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	BS 4737 section 3.30

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1160 003	2 x 0,22	3.0	4.2	14.5
1160 004	3 x 0,22	3.2	6.3	15.0
1160 005	4 x 0,22	3.4	8.4	21.0

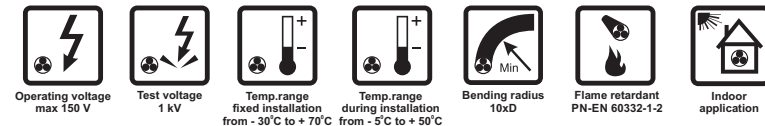
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1160 006	6 x 0,22	4.0	12.7	29.5
1160 007	8 x 0,22	4.3	16.9	37.0
1160 008	10 x 0,22	5.0	21.1	44.0

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YTDY

### CABLES FOR ALARM AND SECURITY SYSTEMS



### APPLICATIONS

YTDY are cables intended for low-voltage circuits, such as remote control, signal and data transmission systems. Also suitable for interconnecting wiring in telephony, alarm and security systems.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire round conductors of diameter 0.5 mm,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up into a cable core,
- PVC cable sheath, white RAL 9010, other colours also available.

### CHARACTERISTICS

Conductor diameter	0.5 mm	Inductance, approximate	0,7 mH/km
DC conductor resistance at 20°C, maximum	97.8 Ω/km	Operating temperature range during operation	from - 30 to + 70°C
Operating voltage	150 V	during installation	from - 5 to + 50°C
Voltage test		Minimum bending radius	10 x cable diameter
AC voltage for 60s	1000 V rms	Cable combustibility	flame retardant
DC voltage	1500 V	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Insulation resistance, minimum	200 MΩ·km	Reference standards	PN-92/T-90203, PN-92/T-90200

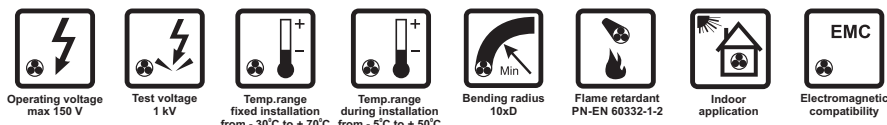
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0411 002	2 x 0,5	2.7	3.8	9.7
0411 003	4 x 0,5	3.0	7.5	14.8
0411 005	6 x 0,5	3.5	11.3	21.5
0411 009	8 x 0,5	3.9	15.1	26.0
0411 011	10 x 0,5	4.4	18.8	31.5
0411 012	12 x 0,5	4.5	22.6	36.5

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0411 013	14 x 0,5	4.8	26.3	42.0
0411 014	16 x 0,5	5.0	30.1	49.0
0411 015	18 x 0,5	5.3	33.9	55.0
0411 001	20 x 0,5	5.5	37.6	57.0
0411 016	30 x 0,5	6.4	56.0	81.0

Other diameters and conductor counts available on request.  
TECHNOKABEL S.A reserves the right to change specifications without prior notice.

## YTDYekw

### CABLES FOR ALARM AND SECURITY SYSTEMS



### APPLICATIONS

YTDYekw are overall shielded cables intended for low-voltage circuits, such as remote control, signal and data transmission systems. Also suitable for interconnecting wiring in telephony, alarm and security systems.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire round conductors of diameter 0.5 mm,
- PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up into a cable core,
- overall shield incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- PVC cable sheath, white RAL 9010, other colours also available

### CHARACTERISTICS

Conductor diameter	0.5 mm	Inductance, approximate	0,7 mH/km
DC conductor resistance at 20°C, maximum	97.8 Ω/km	Operating temperature range during operation	from - 30 to + 70°C
Operating voltage	150 V	during installation	from - 5 to + 50°C
Voltage test		Minimum bending radius	10 x cable diameter
AC voltage for 60s	1000 V rms	Cable combustibility	flame retardant
DC voltage	1500 V	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Insulation resistance, minimum	200 MΩ·km	Reference standards	PN-92/T-90203, PN-92/T-90200

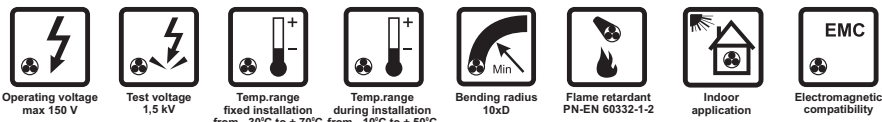
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0412 001	2 x 0,5	2.8	5.0	11.4
0412 002	4 x 0,5	3.1	8.7	16.5
0412 003	6 x 0,5	3.6	12.5	23.0
0412 004	8 x 0,5	4.0	16.3	27.5
0412 005	10 x 0,5	4.5	20.1	33.0

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0412 006	12 x 0,5	4.6	23.8	37.5
0412 007	14 x 0,5	4.9	27.6	43.0
0412 008	20 x 0,5	5.6	38.9	58.0
0412 009	30 x 0,5	6.5	58.0	82.0

Other diameters and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

**P-CAB 4/TP/50**  
**P-CAB 4/TP/75**

**CABLES FOR ALARM AND SECURITY SYSTEMS**



**APPLICATIONS**

**P-CAB 4/TP/50** and **P-CAB 4/TP/75** are multipair, pair individually shielded cables intended for BUS type systems. Also suitable for access control and CCTV systems.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are suitable for fixed indoor installations.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - identification colour code: pair 1. black and red, pair 2 white and yellow,
- pair shields incorporating aluminium-polyester tape and multiwire annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup>,
- shielded pairs laid-up into cable core,
- PVC cable sheath, white RAL 9010, other colours also available.

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.50</b>	<b>0.75</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0
Voltage test	V rms	1500	1500
Mutual capacitance at 1 kHz, approximate	nF/km	170	180

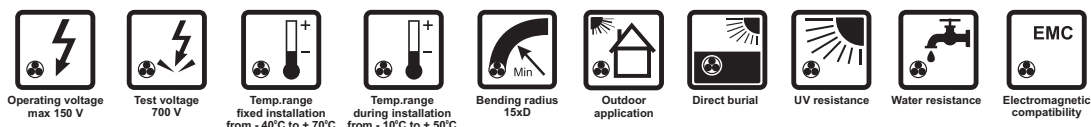
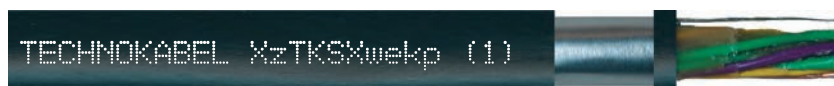
Operating voltage	150 V	Operating temperature range during operation	from - 30 to + 70°C
Insulation resistance, minimum	200 MΩ·km	during installation	from - 10 to + 50°C
		Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	BS 4737 sec.3.30

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0916 003	2 x 2 x 0,50	6.3	23.5	57
0916 001	2 x 2 x 0,75	7.0	33.1	71

Other cross-sections and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## XzTKSXwekp (1) 16x(1x2x0,4c)

### TELECOMMUNICATION CABLES



### APPLICATIONS

**XzTKSXwekp 120 16x(1x2x0.4c) mm** are multipair, pair individually shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Cables provide data transmission in the following systems: ISDN, PCM and others.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- tin-plated copper single wire round conductors of diameter 0.4 mm,
- polyethylene (PE) insulation - identification colour code: black, natural,
- insulated conductors twisted into pairs,
- pair shields incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- shielded pairs laid-up in layers,
- cable core filled petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

## XzTKSXwekp (1) 16x(1x2x0,4c)

### CHARACTERISTICS

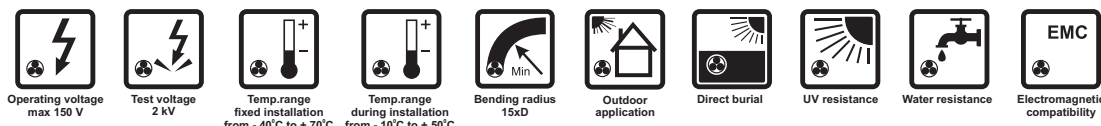
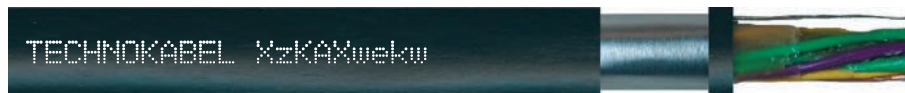
Characteristic impedance	120 ± 15 Ω	DC loop resistance at 20°C, maximum	290 Ω/km
Mutual capacitance at 1 kHz	60 ± 5 nF/km	Operating temperature range during operation	from - 40 to + 70 °C
Attenuation loss, max - at frequency 1MHz	4.5 dB/100 m	during installation	from - 10 to + 50 °C
Near-end cross-talk at 1 MHz, minimum	60 dB	Minimum bending radius	15 x cable diameter
Insulation resistance, minimum	1000 MΩ·km		
Operating voltage	150 V		
Voltage test	700 V rms		

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0990 001	16x(1x2x0,4c)	15	59	250

Other diameters and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TECHNOINSTAL XzKAXwekw

### MULTIPAIR CABLES FOR ALARM AND SECURITY SYSTEMS, FOR DIRECT EARTH BURIAL



## APPLICATIONS

**TECHNOINSTAL XzKAXwekw** cables intended for alarm, security and control systems, sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

## CONSTRUCTION

- bare annealed copper single wire round conductors of diameter 0.5; 0.6 and 0.8 mm,
- PVC insulation - identification colour code according to PN-92/T-90321,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

## AVAILABLE UPON REQUEST

**TECHNOINSTAL XzKAXwekwn**- cable intended for suspension on poles. The cable is integrated with a steel rope by an '8' shape polyethylene (PE) common sheath.

## TECHNOINSTAL XzKAXwekw

### CHARACTERISTICS

Conductor diameter	mm	<b>0.5</b>	<b>0.6</b>	<b>0.8</b>
DC loop resistance at 20°C, maximum	Ω/km	191.6	133.2	73.6

Operating voltage	150 V	Inductance, approximate	0.7 mH/km
Voltage test	2000 V rms	Operating temperature range for fixed installation	from - 40 to + 70°C
Mutual capacitance at 1 kHz, approximate	70 nF/km	for movable installation	from - 10 to + 50°C
Insulation resistance, minimum	1500 MΩ·km	Minimum bending radius	15 x cable diameter

Product No.	Number of pairs (x 2) x conductor diameter mm	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0270 011	2 x 2 x 0,5	7.3	9.6	50.5
0270 012	3 x 2 x 0,5	7.6	13.4	56.5
0270 008	5 x 2 x 0,5	8.7	21.2	77.0
0270 002	3 x 2 x 0,6	8.9	17.5	71.0
0270 009	5 x 2 x 0,6	9.6	28.4	94.5

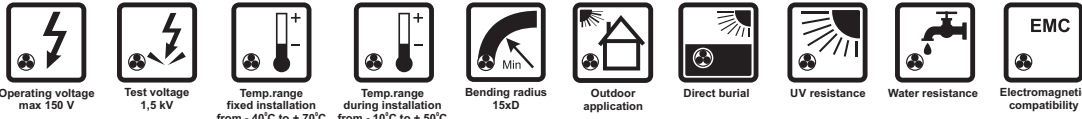
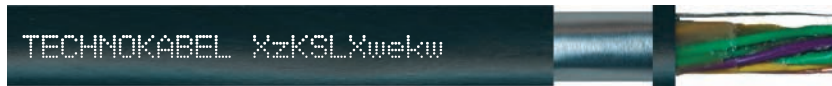
Product No.	Number of pairs (x 2) x conductor diameter mm	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0270 007	1 x 2 x 0,8	8.4	11.6	68.0
0270 001	2 x 2 x 0,8	8.5	21.2	79.5
0270 003	3 x 2 x 0,8	9.3	30.9	94.5
0270 004	5 x 2 x 0,8	10.6	50.2	130.0
0270 006	10 x 2 x 0,8	13.2	98.4	214.5

Other diameters and pair counts available on request.  
TECHNOKABELS.A. reserves the right to change specifications without prior notice.



## TECHNOINSTAL XzKSLXwekw

### CABLES FOR ALARM, SECURITY AND CONTROL SYSTEMS, FOR DIRECT EARTH BURIAL



### APPLICATIONS

**TECHNOINSTAL XzKSLXwekw** cables intended for alarm, security and control systems, sensitive to electromagnetic interferences.

Moisture barrier is made of plastic laminated aluminium tape longitudinally applied over a cable core and bonded to polyethylene (PE) cable sheath. The cable core is filled with petro-gel to protect the cable against moisture penetration along the cable.

Sheathing polyethylene (PE) is halogen free and UV radiation and weather resistant, however, it is not self-extinguishing and flame retardant.

The cable is suitable for outdoor installations, laying in ducts and direct earth burial.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- polyethylene (PE) insulation,
- insulated conductors laid-up into a cable core,
- cable core filled-up with petro-gel and wrapped in a polyester tape,
- moisture barrier and additional cable shielding made of a plastic laminated aluminium tape and a drain wire under the tape longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

### CHARACTERISTICS

DC conductor resistance at 20°C, maximum:	- wire 1.0 mm <sup>2</sup> - wire 1.5 mm <sup>2</sup> - wire 2.5 mm <sup>2</sup>	19.5 Ω/km 13.3 Ω/km 7.98 Ω/km	Effective capacitance between conductors at 1 kHz, appr.	70 nF/km
Operating voltage	150 V		Inductance, approximate	0.7 mH/km
Voltage test	1500 V rms		Operating temperature range during operation	from - 40 to + 70°C
Insulation resistance, minimum	1500 MΩ·km		during installation	from - 10 to + 50°C
			Minimum bending radius	15 x cable diameter

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0272 001	2 x 1,0	9.4	24.0	105
0272 002	2 x 1,5	9.7	36.0	110
0272 004	2 x 2,5	9.6	55.0	122

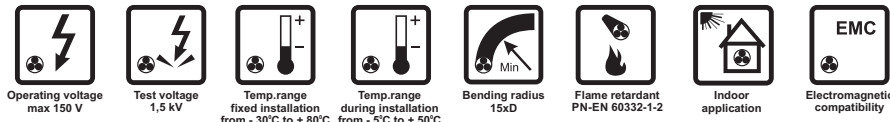
Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0272 007	4 x 1,0	10.2	43.2	122
0272 003	4 x 1,5	10.2	65.0	150
0272 008	4 x 2,5	10.8	103.0	182

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## S-2Y(St)CY 8x2x0,6c mm 120Ω

### DATA TRANSMISSION CABLE



### APPLICATIONS

**S-2Y(St)CY 8x2x0,6c mm 120 Ω** is an overall shielded cable intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Cables provide data transmission in the following systems: ISDN, PCM and others.

Low capacitance between conductors is a distinctive feature of the cable.

For proper transmission of digital and analogue signals the cable is protected by a specially designed and highly effective collective shield against external electromagnetic interferences.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed tin-plated copper single wire round conductors of diameter 0.6 mm,
- polyethylene (PE) insulation - identification colour code according to PN-92/T-90321,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- collective shield, incorporating aluminium-polyester tape and 0.6 mm annealed tinned copper drain wire under a tinned copper wire braid shield of coverage bigger than 80%,
- PVC cable sheath, grey, other colours also available.

### CHARACTERISTICS

Characteristic impedance	120 ± 15 Ω	Attenuation loss, max at frequency [MHz]:	
Mutual capacitance at 1 kHz	45 ± 5 nF/km	1	1.3 dB/100 m
Insulation resistance, minimum	10 GΩ·km	2	1.7 dB/100 m
Operating voltage	150 V	Operating temperature range	
Voltage test	1500 V rms	for fixed installation	from - 30 to + 80°C
DC loop resistance at 20°C, maximum	130 Ω/km	for movable installation	from - 5 to + 50°C
		Minimum bending radius	15 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DT

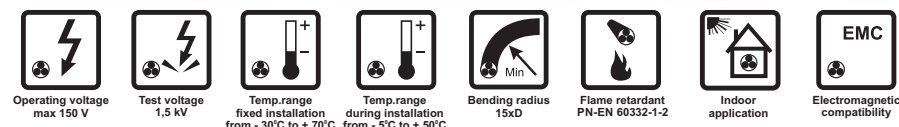
Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
1976 001	8 x 2 x 0,6c	10.1	82.6	140

Other diameters and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## J-2Y (St) (St) Y 120 Ω

### DATA TRANSMISSION CABLE



### APPLICATIONS

**J-2Y(St)(St)Y 120 Ω** are multipair, pair and overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Cables are designed for transmission in ISDN, PCM, RS 232, RS 422, RS 423, Ethernet 10baseT 10 Mb/s, Token Ring 4/16 Mb/s systems.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed tin-plated copper single wire round conductors of diameter 0.4 mm,
- polyethylene (PE) insulation - identification colour code according to PN-92/T-90321,
- insulated conductors twisted into pairs,
- pair electrostatic shield incorporating a plastic laminated metal foil and an annealed tinned copper single drain wire,
- shielded pairs laid-up into a cable core,
- overall electrostatic shield incorporating a plastic laminated metal foil and an annealed tinned copper single drain wire,
- PVC cable sheath, grey RAL 7001, other colours also available.

### AVAILABLE UPON REQUEST

**J-2Y(St)(St)H 120 Ω** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## J-2Y(St)(St)Y 120 Ω

### CHARACTERISTICS

Characteristic impedance	120 ± 15 Ω	Operating voltage	150 V
Mutual capacitance at 1 kHz	50 ± 5 nF/km	Voltage test	1500 V rms
Insulation resistance, minimum	10 GΩ·km	DC loop resistance at 20°C, maximum	290 Ω/km
Attenuation loss, [dB/100m] max - at frequency [MHz]:		Operating temperature range	
1	3.6	during operation	from -30 to +70 °C
4	6.0	during installation	from -5 to +50 °C
10	9.0	Minimum bending radius	15 x cable diameter
16	11.0	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 815

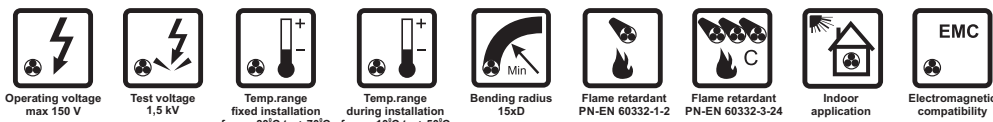
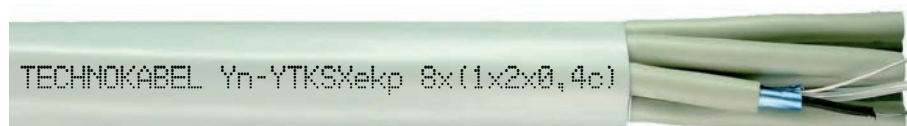
Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0021 001	8 x 2 x 0,4c	10.0	30.2	107

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0021 002	12 x 2 x 0,4c	12.5	44.7	160

Other pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnTKSXekp 1x2x0,4c Yn-YTKSXekp nx(1x2x0,4c)

### TELECOMMUNICATION CABLES



### APPLICATIONS

YnTKSXekp 1x2x0,4c mm and Yn-YTKSXekp nx(1x2x0,4c) mm are multipair, pair individually shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Cables provide data transmission in the following systems: ISDN, PCM and others.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

The cables are suitable for indoor installations.

### CONSTRUCTION YnTKSXekp

- tin-plated copper single wire round conductors of diameter 0.4 mm,
- PVC insulation - identification colour code: black, grey,
- insulated conductors twisted into pair,
- pair shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- special (oxygen index bigger than 29%) PVC cable sheath, grey RAL 7035, other colours also available.

### CONSTRUCTION Yn-YTKSXekp

- tin-plated copper single wire round conductors of diameter 0.4 mm,
- PVC insulation - identification colour code: black, grey,
- insulated conductors twisted into pairs,
- pair shield incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- shielded pairs sheathed with PVC to insulate one shield from another, grey RAL 7035 and printed black number of pair,
- shielded and sheathed pairs laid-up in layers,
- special self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, grey RAL 7035, other colours also available.

**YnTKSXekp 1x2x0,4c**  
**Yn-YTKSXekp nx(1x2x0,4c)**

**CHARACTERISTICS**

Characteristic impedance	120 ± 15 Ω	DC loop resistance at 20°C, maximum	290 Ω/km
Effective capacitance at 1 kHz	50 ± 5 nF/km	Operating temperature range during operation	from - 30 to + 70 °C
Attenuation loss, max - at frequency 1MHz	6 dB/100 m	Operating temperature range during installation	from - 10 to + 50 °C
Insulation resistance, minimum	1000 MΩ·km	Minimum bending radius	15 x cable diameter
Operating voltage	150 V	Cable combustibility	flame retardant
Voltage test	1500 V rms	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	PN-92/T-90320

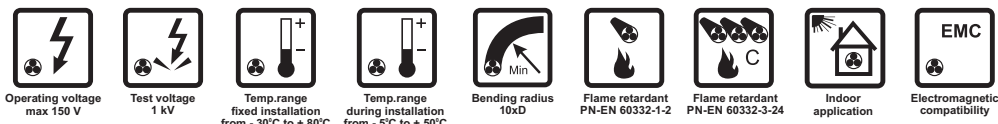
Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0524 001	YnTKSXekp	1x2x0,4c	3.9	3.6	17.0

Product No.	Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	mm	kg/km	kg/km
0481 001	Yn-YTKSXekp	8x(1x2x0,4c)	14.5	28.8	175.0
0481 003	Yn-YTKSXekp	24x(1x2x0,4c)	23.9	86.9	523.0

Other diameters and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YnC-YTKSYekp nx(1x2x0,6c)

### TELECOMMUNICATION CABLES



### APPLICATIONS

YnC-YTKSYekp nx(1x2x0,6c) are multipair, pair and overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are suitable for indoor installations.

### CONSTRUCTION

- tin-plated copper single wire round conductors of diameter 0.6 mm,
- PVC insulation - identification colour code: black, grey,
- insulated conductors twisted into pairs,
- pair shield incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- shielded pairs sheathed with PVC to insulate one shield from another, grey RAL 7035 and printed black number of pair,
- shielded and sheathed pairs laid-up in layers,
- tinned copper wire braid shield of coverage bigger than 80%,
- special self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, grey RAL 7035, other colours also available.

### CHARACTERISTICS

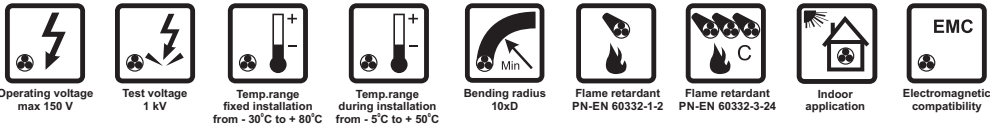
Operating voltage	150 V	Operating temperature range	
Voltage test	1000 V rms	during operation	from - 30 to + 80°C
DC loop resistance at 20°C, maximum	135.8 Ω/km	during installation	from - 5 to + 50°C
Effective capacitance at 1 kHz, approximate	200 nF/km	Minimum bending radius	10 x cable diameter
Insulation resistance, minimum	20 MΩ·km	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-4, PN-92/T-90320

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
1095 001	12x(1x2x0,6c)	14.5	165	320

Other diameters and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YnC-YTKSXekp nx(1x2x0,6c)

### TELECOMMUNICATION CABLES



### APPLICATIONS

YnC-YTKSXekp nx(1x2x0,6c) mm are multipair, pair and overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are suitable for indoor installations.

### CONSTRUCTION

- tin-plated copper single wire round conductors of diameter 0.6 mm,
- polyethylene (PE) insulation - identification colour code: black, grey,
- insulated conductors twisted into pairs,
- pair shield incorporating aluminium-polyester tape and annealed tinned copper single drain wire,
- shielded pairs sheathed with PVC to insulate one shield from another, grey RAL 7035 and printed black number of pair,
- shielded and sheathed pairs laid-up in layers,
- tinned copper wire braid shield of coverage bigger than 80%,
- special self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, grey RAL 7035, other colours also available.

### CHARACTERISTICS

Characteristic impedance	80 Ω	DC loop resistance at 20°C, maximum	135.8 Ω/km
Effective capacitance at 1 kHz, approximate	100 nF/km	Operating temperature range for operation	from - 30 to + 80°C
Attenuation loss, max - at frequency 1MHz	6 dB/100 m	for installation	from - 5 to + 50°C
Insulation resistance, minimum	1000 MΩ·km	Minimum bending radius	10 x cable diameter
Operating voltage	150 V	Cable combustibility	flame retardant
Voltage test	1000 V rms	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 50266-2-4 , IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-4, PN-92/T-90320

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0847 003	2x(1x2x0,6c)	9.0	37.1	100
0847 004	4x(1x2x0,6c)	10.2	55.9	133
0847 005	8x(1x2x0,6c)	11.7	91.0	198
0847 002	10x(1x2x0,6c)	14.0	144.0	263
0847 001	12x(1x2x0,6c)	14.5	165.2	310

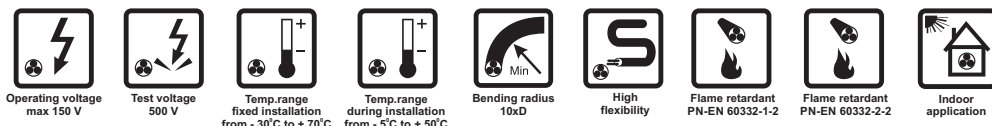
Other diameters and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## YPMX; YPMXekw; YPMXekź; YPMXekźp YPMY; YPMYekw; YPMYekź

### MICROPHONE CABLES



### APPLICATIONS

Microphone cables intended for connecting movable electroacoustics, electronics and monitoring devices.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION of YPMX; YPMXekw; YPMXekź; YPMXekźp

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request),
- polyethylene (PE) insulation - identification colour code according to PN-T-90222,
- individual shield with copper wire lapping (ekź),
- individually shielded cores laid parallel to one another along the cable (YPMXekźp),
- cores or individually shielded cores laid-up into cable core,
- overall shield with copper wire lapping (ekw),
- black (RAL 9005) PVC cable sheath, other colours also available.

### CONSTRUCTION of YPMY; YPMYekw; YPMYekź

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request),
- PVC insulation - identification colour code according to PN-T-90221,
- individual shield with copper wire lapping (ekź),
- cores or individually shielded cores laid-up into cable core,
- overall shield with copper wire lapping (ekw),
- black (RAL 9005) PVC cable sheath, other colours also available.

**YPMX; YPMXekw; YPMXekz; YPMXekzp  
YPMY; YPMYekw; YPMYekz**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.05</b>	<b>0.08</b>	<b>0.12</b>	<b>0.15</b>	<b>0.20</b>	<b>0.50</b>
DC conductor resistance at 20°C	Ω/km	400	270	170	150	105	39

Operating voltage	150 V	Operating temperature range	
Voltage test	500 V rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum		during installation	from - 5 to + 50°C
PE insulation	100 MΩ·km	Minimum bending radius	10 x cable diameter
PVC insulation	10 MΩ·km	Cable combustibility	flame retardant
Mutual capacitance shielded and unshielded conductors to other conductors and screens connected together, appr.		Combustibility tests	PN-EN 60332-1-2, PN-EN 60332-2-2, IEC 60332-1-2, IEC 60332-2-2
PE insulation	140 pF/m	Reference standards	PN-T-90221, PN-T-90222
PVC insulation	300 pF/m		

Product No.	Number of conductors x conductor cross-section	Outer dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YPMXekw				
0399 004	1 x 0,05	1.7	2.1	4.6
0399 005	1 x 0,08	2.1	3.2	6.1
0399 006	1 x 0,12	2.1	3.7	7.3
0399 007	1 x 0,15	2.1	4.0	7.5
0399 008	2 x 0,08	2.4	3.7	7.7
0399 003	4 x 0,12	3.9	12.3	22.3
YPMXekz				
0400 001	4 x 0,08	3.7	12.8	24.5
0400 002	5 x 0,08	4.9	15.5	33.0
0397 001	1x0,12+6x0,08ekz	5.5	21.3	42.5
YPMXekzp				
0401 005	2 x 0,05	2.0 x 3.0	4.8	9.5

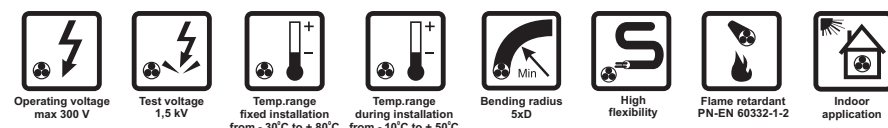
Product No.	Number of conductors x conductor cross-section	Outer dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0401 002	2 x 0,08	2.3 x 4.8	6.5	16.2
0401 003	4 x 0,08	3.3 x 10.0	13.0	37.2
0401 007	2 x 0,12	2.3 x 4.8	7.4	18.6
0401 004	2 x 0,15	2.4 x 4.9	7.9	19.0
0401 001	2 x 0,50	3.5 x 7.4	17.8	42.0
YPMYekw				
0405 009	1 x 0,05	1.7	2.1	4.7
0405 010	1 x 0,08	2.1	3.2	7.2
0405 011	1 x 0,12	2.1	3.7	7.7
0405 012	1 x 0,20	2.6	4.9	11.5
0405 013	1 x 0,50	3.2	10.3	21.5
0405 014	2 x 0,08	2.4	3.8	8.1
0405 005	4 x 0,12	3.9	12.3	23.7

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TLYp, TLgYp

### LOUDSPEAKER CABLES



### APPLICATIONS

Loudspeaker cables **TLYp** and **TLgYp** (high flexible) are intended for connection between amplifiers and loudspeakers.

The cables are flat with common PVC insulation (eight shape) on two parallel conductors.

The cables are designed to offer high acoustic parameters confirmed by testing in Electroacoustic Division, Institute of Radioelectronics Warsaw University of Technology.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires,
- PVC insulation,
- colours:
  - black with white strip or white with black strip (cross-sections 0.35 and 0.5 mm<sup>2</sup>),
  - transparent with black or red strip (other cross-sections),
  - other colours also available.

### AVAILABLE UPON REQUEST

**TLYp OFC** and **TLgYp OFC** - cables with conductors made of oxygen-free copper (OFC).

**TLHp** and **TLgHp** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## TLYp, TLgYp

### CHARACTERISTICS

#### TLYp wires

Conductor cross-section	mm <sup>2</sup>	0,35	0,5	0,75	1,0	1,5
DC conductor resistance at 20°C						
- maximum value	Ω/km	55.4	39.0	26.0	19.5	13.3
- average value		54.6	37.4	24.8	18.8	12.3
Inductance, approximate	mH/km	422	203	96	51	30

#### TLgYp wires

Conductor cross-section	mm <sup>2</sup>	1,5	2,5	4	6	10
DC conductor resistance at 20°C						
- maximum value	Ω/km	13.3	7.98	4.95	3.3	1.91
- average value		12.5	7.5	4.7	3.0	1.8
Inductance, approximate	mH/km	30	9	4	2	1.5

Insulation resistance, minimum 200 MΩ·km

Operating voltage 300 V

Voltage test 1500 V rms

Operating temperature range  
for fixed installation  
for movable installation

from -30 to +80 °C

from -10 to +50 °C

Minimum bending radius

5 x width of wire

Cable combustibility

flame retardant

Combustibility tests

PN-EN 60332-1-2; IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Conductor construction	Outer dimensions	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km
TLYp				
0246 002	2 x 0,35	20 x 0.15	1.6x3.4	11.0
0246 027	2 x 0,5	15 x 0.195	2.2x4.5	18.0
0246 028	2 x 0,75	22 x 0.195	2.2x4.6	21.5
0246 029	2 x 1,0	30 x 0.195	2.5x5.1	28.5
0246 030	2 x 1,5	28 x 0.246	2.8x5.7	38.5

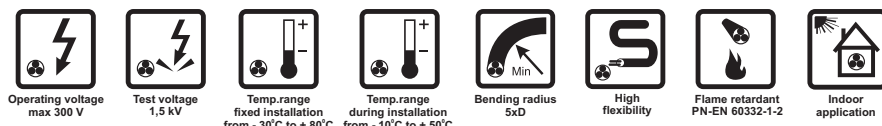
Product No.	Number of conductors x conductor cross-section	Conductor construction	Outer dimensions	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km
TLgYp				
0237 026	2 x 1,5	85 x 0.144	2.8x5.7	38.0
0237 025	2 x 2,5	140 x 0.144	3.7x7.5	62.0
0237 027	2 x 4,0	126 x 0.195	4.6x9.4	103.0
0237 028	2 x 6,0	126 x 0.246	5.8x11.7	161.0
0237 015	2 x 10,0	588 x 0.144	6.8x13.8	249.0

Other construction of conductors and outer dimensions available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TLYp (L1), TLgYp (L1) LOUDSPEAKER CABLES

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### APPLICATIONS

Loudspeaker cables **TLYp (L1)** and **TLgYp (L1)** (high flexible) are intended for connection between amplifiers and loudspeakers.

The cables are flat with common PVC insulation (eight shape) on two parallel conductors.

The cables are designed to offer high acoustic parameters confirmed by testing in Electroacoustic Division, Institute of Radioelectronics Warsaw University of Technology.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires,
- PVC insulation,
- colours:
  - black with white strip or white with black strip (cross-sections 0.35 and 0.5 mm<sup>2</sup>),
  - transparent with black or red strip (other cross-sections),
  - other colours also available.

### AVAILABLE UPON REQUEST

**TLYp(L1) OFC** and **TLgYp (L1) OFC** - cables with conductors made of oxygen-free copper (OFC).

**TLHp (L1)** and **TLgHp (L1)** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## TLYp (L1), TLgYp (L1)

### CHARACTERISTICS

#### TLYp (L1) wires

Conductor cross-section	mm <sup>2</sup>	0,35	0,5	0,75	1,0	1,5
DC conductor resistance at 20°C						
- maximum value	Ω/km	55.4	39.0	26.0	19.5	13.3
- average value		54.6	37.4	24.8	18.8	12.3
Inductance, approximate	mH/km	422	203	96	51	30

#### TLgYp (L1) wires

Conductor cross-section	mm <sup>2</sup>	1,5	2,5	4	6	10
DC conductor resistance at 20°C						
- maximum value	Ω/km	13.3	7.98	4.95	3.3	1.91
- average value		12.5	7.5	4.7	3.0	1.8
Inductance, approximate	mH/km	30	9	4	2	1.5

Insulation resistance, minimum 200 MΩ·km

Operating voltage 300 V

Voltage test 1500 V rms

Operating temperature range

for fixed installation

for movable installation

from -30 to +80 °C

from -10 to +50 °C

Minimum bending radius

5 x width of wire

Cable combustibility

flame retardant

Combustibility tests

PN-EN 60332-1-2; IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Conductor construction	Outer dimensions	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km
TLYp (L1)				
0246 004	2 x 0,35	19 x 0.144	1.55x3.2	9.4
0246 022	2 x 0,5	15 x 0.195	1.9x4.0	14.3
0246 023	2 x 0,75	22 x 0.195	2.1x4.4	19.0
0246 024	2 x 1,0	29 x 0.195	2.25x4.7	23.5
0246 025	2 x 1,5	27 x 0.246	2.5x5.2	32.0

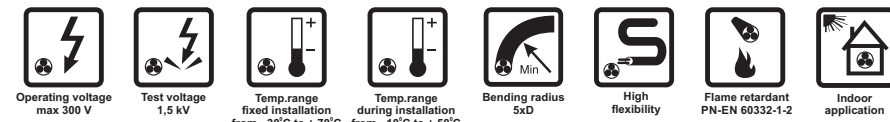
Product No.	Number of conductors x conductor cross-section	Conductor construction	Outer dimensions	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km
TLgYp (L1)				
0237 018	2 x 1,5	42 x 0.195	2.5x5.2	32.0
0237 019	2 x 2,5	70 x 0.195	3.35x6.9	55.0
0237 020	2 x 4,0	114 x 0.195	4.05x8.3	85.0
0237 021	2 x 6,0	110 x 0.246	5.1x10.4	130.0
0237 022	2 x 10,0	186 x 0.246	5.95x12.2	205.0

Other construction of conductors and outer dimensions available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## IPG

### LOUDSPEAKER CABLES



### APPLICATIONS

Loudspeaker cables **IPG** (high flexible) are intended for connection between amplifiers and loudspeakers.

The cables are flat with common PVC insulation (eight shape) on two parallel conductors or round PVC insulated and sheathed.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires,
- PVC insulation - the colours of conductor insulation:  
transparent with black or red strip, other colours also available - for flat cables,  
transparent with black marking printed on it - for round cables,
- special PVC sheath, only for round cable, coloured according to customer's requirement.

### AVAILABLE UPON REQUEST

**IPG OFC** - cables with conductors made of oxygen-free copper (OFC).

**IPG-HF** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1.5	2.5	4	6	10	
Conductor resistance at 20°C	Ω/km	maximum value	13.3	7.98	4.95	3.3	1.91
		average value	12.5	7.5	4.7	3.0	1.8
Inductance, approximate	mH/km	30	9	4	2	1.5	

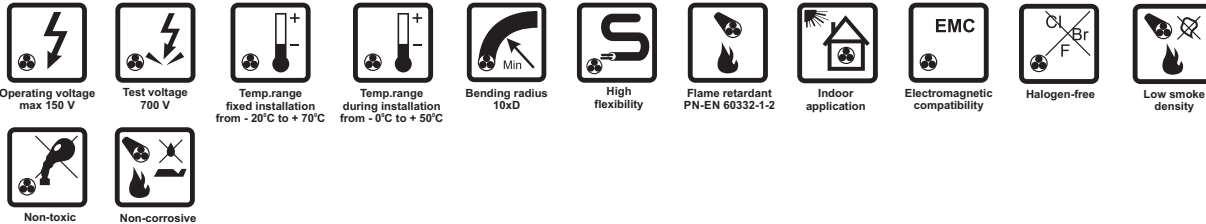
Operating voltage, maximum	300 V	Operating temperature range	
Insulation resistance, minimum	200 MΩ·km	for fixed installation	from - 30 to + 70°C
		for movable installation	from - 10 to + 50°C
Voltage test	1500 V rms	Minimum bending radius	5 x cable height
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Construction of conductor	Cable dimensions (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Construction of conductor	Cable dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	mm	kg/km	kg/km		mm <sup>2</sup>	mm	mm	kg/km	kg/km
0020 009	2 x 2,5	140 x 0.15	3.7x7.5	50.5	65.0	0020 003	2 x 10,0	588 x 0.15	6.8x13.8	192.0	250.0
0020 001	2 x 4,0	126 x 0.20	4.6x9.4	80.0	103.0	0020 010	4 x 4,0	126 x 0.20	12.9	153.6	263.0
0020 002	2 x 6,0	126 x 0.25	5.8x11.7	115.2	161.0	0020 011	4 x 6,0	126 x 0.25	14.8	230.4	368.0

Other construction of conductor and cable dimensions available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## PPAV-01 5x0,45/2,0 75Ω

### PROFESSIONAL AUDIOVIDEO CABLE



### APPLICATIONS

Professional audio-video cable **PPAV-01 5x0.45/2.0** is intended for connection of computer video signal (RGB, vertical and horizontal sync signal) via interfaces and switches, for monitor displays and projectors.

It is also intended for AES/EBU digital audio signal's transmission and connection of DMX devices, for example: for lighting effects control.

The cable is designed to offer small weight and small outer diameter, combined with very good video signal parameters transmitted through the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall electrostatic shield.

Halogen free cable, applied when higher safety in case of fire is required. The cable is flame retardant, its smoke emission in fire is low and released gases are not corrosive.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires (7x0.15 mm),
- foam-skin polyethylene insulation,
- individual shield incorporating aluminium-polyester tape under copper wire lapping,
- sheath of shielded wires made of halogen free compound (HFFR),
- colours of sheath: yellow, blue, green, red, black,
- sheath diameter: 2.7±0.1 mm,
- five mini-coaxial laid-up into cable core,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- cable sheath made of halogen free compound, grey RAL 7001, other colours also available.

### CHARACTERISTICS

Characteristic impedance	75 ± 3 Ω	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2,
Mutual capacitance at 1 kHz,	58 ± 3 nF/km	pH, appr.	IEC 60754-2
Operating voltage, max.	150 V	conductivity, appr.	6.8
Voltage test	700 V rms	Smoke density	PN-EN 61034-2, IEC 61034-2
DC conductor resistance at 20°C,		minimum light	
maximum	160 Ω/km	transmittance	70 %
Velocity of propagation	78 %	Minimum bending radius	10 x cable diameter
Operating temperature range		Cable combustibility	flame retardant
for fixed installation	from -20 to +70 °C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
for movable installation	from 0 to +50 °C		

### Attenuation loss, maximum

f	MHz	1	2	5	50	100	200	300
a	dB/100 m	1.5	3.0	4.2	12.1	19.0	26.2	44.3

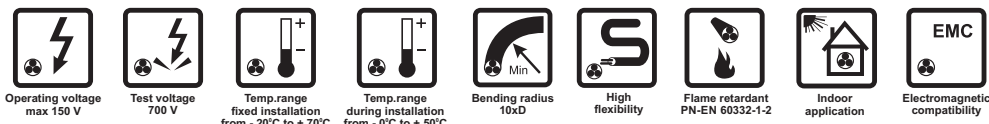
Product No.	Construction	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0205 001	5x0,45/2,0	9.0	31.5	96

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## PPAV-05 3x0,45/2,0+4x0,22c

### PROFESSIONAL AUDIOVIDEO CABLE



### APPLICATIONS

Professional audio-video cable **PPAV-05 3x0.45/2.0+4x0.22c** is intended for connection of monitor displays, TV cameras and TVs.

Cable can also be used for connection of computer video signal (RGB signal) via interfaces and switches, for monitor displays and projectors.

The cable is designed to offer small weight and small outer diameter, combined with very good video signal parameters transmitted through the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall electrostatic shield.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

#### Video wires (R,G,B) 0.45/2.0 mm

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires (7x0.15 mm),
- foam-skin polyethylene insulation, diameter 2.0 mm,
- individual shield incorporating aluminium-polyester tape under copper wire lapping,
- sheath of shielded wires made of halogen free compound (HFFR),
- colours of sheath: red, green, blue,
- sheath diameter: 2.7±0.1 mm,

#### Auxiliary wires (for control) 0.22c mm<sup>2</sup>

- flexible, multiwire conductors, stranded of annealed tin-plated copper wires (7x0.2 mm),
- PVC insulation – colours of insulation: white, brown, yellow, black,
- auxiliary wires diameter: 1.1±0.1 mm,

#### Cable

- three video wires and four auxiliary wires laid-up into cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- very soft PVC cable sheath, grey, other colours also available.

## PPAV-05 3x0,45/2,0+4x0,22c

### CHARACTERISTICS

Conductor type		video wires 0.45/2.0 mm	auxiliary wires 0.22c mm <sup>2</sup>
DC conductor resistance at 20°C, maximum	Ω/km	160	85
Insulation resistance, minimum	MΩ.km	100	10
Voltage test	V rms	700	1200
Mutual capacitance at 1 kHz, approximate	nF/km	58	-
Characteristic impedance	Ω	75 ± 3	-

### Attenuation loss, video wires - maximum

f	[MHz]	1	2	5	50	100	200	300
a	[dB/100 m]	1.5	3.0	4.2	12.1	19.0	26.2	44.3

Operating temperature range  
for fixed installation  
for movable installation

from -20 to + 70 °C  
from 0 to + 50 °C

Minimum bending radius

10 x cable diameter

Cable combustibility

flame retardant

Combustibility tests

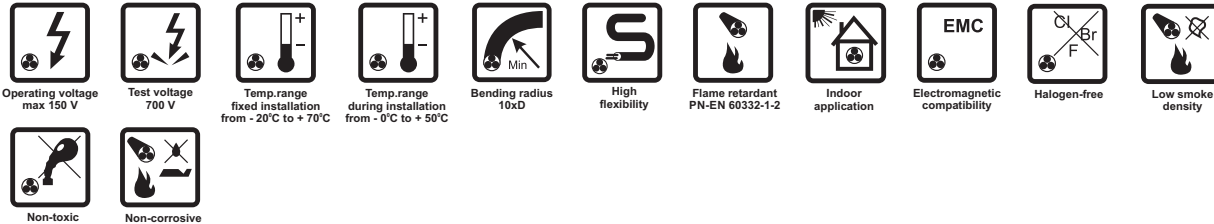
PN-EN 60332-1-2; IEC 60332-1-2

Product No.	Construction	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0205 003	3x0,45/2,0 + 4x0,22c	8.0	26.6	74

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## PPAV-06 3x0,45/2,0 75Ω

### PROFESSIONAL AUDIOVIDEO CABLE



### APPLICATIONS

Professional audio-video cable **PPAV-06 3x0.45/2.0** is intended for connection of computer video signal (RGB, vertical and horizontal sync signal) via interfaces and switches, for monitor displays and projectors.

The cable is designed to offer small weight and small outer diameter, combined with very good video signal parameters transmitted through the cable.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall electrostatic shield.

Halogen free cable, applied when higher safety in case of fire is required. The cable is flame retardant, its smoke emission in fire is low and released gases are not corrosive.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires (7x0.15 mm),
- foam-skin polyethylene insulation,
- individual shield incorporating aluminium-polyester tape under copper wire lapping,
- sheath of shielded wires made of halogen free compound (HFFR),
- colours of sheath: red, green, blue,
- sheath diameter: 2.7±0.1 mm,
- three mini-coaxial laid-up into cable core,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- cable sheath made of halogen free compound, grey RAL 7001, other colours also available.

### CHARACTERISTICS

Characteristic impedance	75 ± 3 Ω	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2,
Mutual capacitance at 1 kHz	58 ± 3 nF/km		IEC 60754-2
Operating voltage, max.	150 V	pH appr.	6.8
Voltage test	700 V rms	conductivity appr.	0.4 μS/mm
DC conductor resistance at 20°C, maximum	160 Ω/km	Smoke density	PN-EN 61034-2, IEC 61034-2
Velocity of propagation	78 %	minimum light transmittance	70 %
Operating temperature range for fixed installation	from -20 to + 70 °C	Minimum bending radius	10 cable diameter
for movable installation	from 0 to + 50 °C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

### Attenuation loss, maximum

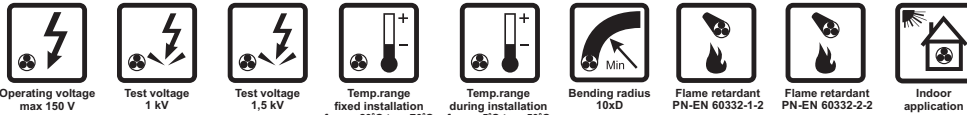
f	[MHz]	1	2	5	50	100	200	300
a	[dB/100 m]	1.5	3.0	4.2	12.1	19.0	26.2	44.3

Product No.	Construction	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm	kg/km	kg/km
0205 006	3x0,45/2,0	7.5	20	62

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**TDY**  
**TDYd**

**HOOK-UP WIRES**



**APPLICATIONS**

TDY and TDYd (with thicker insulation) - are hook-up wires intended for use in remote control, signal and data transmission and industrial data processing systems and computer networks.

Generally, they are designed for control cabinets, electronic devices and others as interconnection cables for electronic modules, equipment and instruments.

**CONSTRUCTION**

- bare annealed copper single wire conductors (tin-plated on request),
- PVC insulation - identification colour code in accordance with PN-91/T-90206,
- in case of multiwire cables, insulated conductors twisted into pairs, triads or quads.

**AVAILABLE UPON REQUEST**

TDYc - wires with heat resistant PVC insulation up to 90°C (on request for temperature up to 105°C - TDYc 105°C).

**CHARACTERISTICS**

Conductor diameter	mm	<b>0.4</b>	<b>0.5</b>	<b>0.6</b>	<b>0.8</b>	<b>1.0</b>	
DC conductor resistance at 20°C, maximum	Ω/km	single-wires	144.0	92.0	64.0	36.0	22.8
		multi-wires	148.0	95.0	65.9	36.7	23.3
Voltage test	V rms	1000	1000	1000	1500	1500	

Operating voltage	150 V	Minimum bending radius	10 x wire diameter
Insulation resistance, minimum	200 MΩ·km	Wire combustibility	flame retardant
Operating temperature range		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
for fixed installation	from - 20 to + 70°C		PN-EN 60332-2-2, IEC 60332-2-2
for movable installation	from - 5 to + 50°C	Reference standards	PN-91/T-90200, PN-91/T-90206

Product No.	Number of conductors x conductor diameter	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
TDY				
0232 010	1 x 0,5	0.90	1.8	2.4
0232 015	1 x 0,6	1.00	2.7	3.2
0232 007	1 x 0,8	1.60	4.8	6.6
0232 016	2 x 0,5	1.80	3.7	4.8
0232 006	2 x 0,6	2.00	5.4	6.5
0232 004	3 x 0,5	1.95	5.6	7.1

Product No.	Number of conductors x conductor diameter	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
0232 002	1 x 0,5c	0.90	1.8	2.4
0232 009	1 x 0,6c	1.00	2.7	3.2
0232 008	1 x 0,8c	1.60	4.8	6.6
TDYd				
0233 001	1 x 0,5	1.05	1.8	2.8
0233 002	2 x 0,5	2.10	3.7	5.6

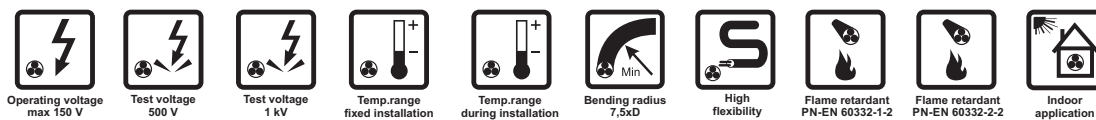
c - tinned copper conductor.

Other conductor diameters and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## TLY

### FLEXIBLE HOOKUP WIRES



### APPLICATIONS

TLY are telecommunication hook-up wires intended for use in remote control, signal and data transmission and industrial data processing systems and computer networks.

Generally, they are designed for control cabinets, electronic devices and others as interconnection cables for electronic modules, equipment and instruments.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request),
- PVC insulation - identification colour code in accordance with PN-91/T-90206,
- in case of multiwire cables, insulated conductors twisted into pairs, triads or quads.

### AVAILABLE UPON REQUEST

TLYc - wires with heat resistant PVC insulation up to 90°C (on request for temperature up to 105°C – TLYc 105°C).

TLYd - wires with reinforced (thickened) insulation.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.055	0.079	0.124	0.22	0.35	0.50
DC conductor resistance at 20°C, maximum	single-wires	365.0	242.0	155.0	89.3	57.2	38.8
	multi-wires	380.0	252.0	161.0	92.0	60.0	40.0
Insulation resistance, minimum	MΩ·km	50	50	50	200	200	200
Voltage test	V rms	500	500	500	1000	1000	1000

Operating voltage	150 V	Minimum bending radius	7.5 x wire diameter
Operating temperature range		Wire combustibility	flame retardant
for fixed installation	from - 20 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
for movable installation	from - 5 to + 50°C		PN-EN 60332-2-2, IEC 60332-2-2
		Reference standards	PN-91/T-90200, PN-91/T-90206

Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
TLY				
0243 006	1 x 0,055	0.64	0.53	0.85
0243 024	1 x 0,079	0.75	0.76	1.2
0243 009	1 x 0,124	0.80	1.19	1.6
0243 011	1 x 0,22	1.0	2.11	2.6
0243 002	1 x 0,35	1.4	3.36	4.6
0243 005	1 x 0,50	1.5	4.8	6.2
0243 007	1 x 0,055c	0.64	0.53	0.85
0243 015	1 x 0,079c	0.75	0.76	1.2

Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
0243 008	1 x 0,124c	0.80	1.19	1.6
0243 012	1 x 0,22c	1.0	2.11	2.6
0243 003	1 x 0,35c	1.4	3.36	4.6
0243 004	1 x 0,50c	1.5	4.8	6.2
TLYd				
0245 002	1 x 0,50	1.8	4.8	7.3

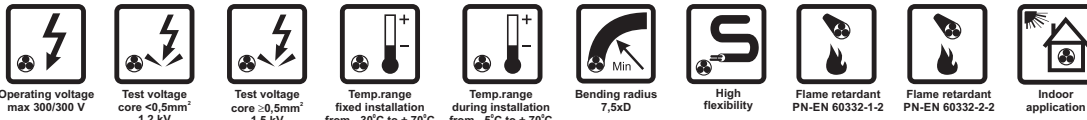
c - tinned copper conductor.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

**LiY  
LiYV**

**FLEXIBLE HOOKUP WIRES**



**APPLICATIONS**

LiY and LiYV are hook-up wires intended for use in remote control, signal and data transmission and industrial data processing systems and computer networks. Generally, they are designed for control cabinets, electronic devices and others as interconnection cables for electronic modules, equipment and instruments.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (LiY) or tinned copper wires (LiYV),
- PVC insulation - coloured according to customer's requirement.

**AVAILABLE UPON REQUEST**

LiH - halogen free wires, applied when higher safety in case of fire is required. The wires are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.0	1.5	2.5
Operating voltage peak value	V	350	350	350	500	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km								
bare copper wire		144.0	79.0	57.0	39.0	26.0	19.5	13.3	7.98
tinned copper wire		148.0	82.0	59.0	40.1	26.7	20.0	13.7	8.21

Operating voltage	300/300 V	Minimum bending radius	7.5 x wire diameter
Insulation resistance, minimum	20 MΩ·km	Wire combustibility	flame retardant
Operating temperature range		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
for fixed installation	from - 30 to + 70°C		PN-EN 60332-2-2, IEC 60332-2-2
for movable installation	from - 5 to + 70°C	Reference standards	DIN VDE 0812, DIN VDE 0814

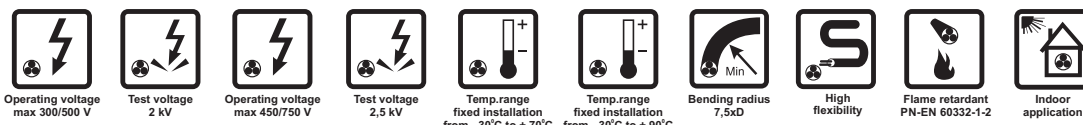
Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0080 001	1 x 0,14/1,1	1.10	1.34	2.4
0080 002	1 x 0,25/1,26	1.26	2.40	3.6
0080 010	1 x 0,34/1,35	1.35	3.26	4.7
0080 005	1 x 0,5/1,74	1.74	4.80	7.1
0080 006	1 x 0,75/2,0	2.0	7.2	9.9

Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0080 007	1 x 1,0/2,1	2.1	9.6	12.4
0080 008	1 x 1,5/2,6	2.6	14.4	18.4
0080 009	1 x 2,5/3,0	3.0	24.0	28.3

Other conductor cross-sections available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

**LgY 500 V; LgY 750 V**  
**LgYc 500 V; LgYc 750 V**

**SINGLE WIRES**



**APPLICATIONS**

**LgY** and **LgYc** are power flexible single wires intended for interconnection in electrical equipment. Wires can be applied in control cabinets, electronic equipment and others. They are also used in lighting devices and systems.

The wires are suitable for indoor installations.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - **LgY** wires,
- heat resistant PVC insulation (PVC 90°C)- **LgYc** wires,
- identification colour code in accordance with PN-87/E-90050.

**AVAILABLE UPON REQUEST**

**LgYc 105°C** - wires with heat resistant PVC insulation up to 105°C.

**LgY-LSF** - wires with special LSF PVC insulation. LSF PVC is self-extinguishing and flame retardant with low emission of toxic and corrosive fumes.

**H05V-K** and **H07V-K** - wires made of according to PN-EN-50525-2-31 standard.

**H05V2-K** and **H07V2-K** - wires with heat resistant PVC insulation made of according to PN-EN-50525-2-31 standard.

**LgY 500 V; LgY 750 V**  
**LgYc 500 V; LgYc 750 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	0.35	0.50	0.75	1.0	1.5	2.5	4
DC conductor resistance at 20°C, maximum	Ω/km	55.7	39.0	26.0	19.51	13.3	7.98	4.95
Insulation resistance for PVC at 70°C and for heat resistant PVC at 95°C, minimum LgY 500, LgYc 500 LgY 750, LgYc 750	MΩ·km	0.014 0.016	0.012 0.015	0.011 0.013	0.010 0.012	0.0085 0.010	0.0071 0.0089	0.0069 0.0082

Operating voltage 300/500 V,  
450/750 V

Operating temperature range

LgY from - 30 to + 70°C  
LgYc from - 30 to + 90°C

Voltage test

wires 500 V 2000 V rms  
wires 750 V 2500 V rms

Minimum bending radius 7.5 x wire diameter

Wire combustibility flame retardant

Combustibility tests PN-EN 60332-1-2, IEC 60332-1-2

Reference standards PN-87/E-90050, PN-87/E-90054

Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
LgY 500 V				
0028 001	0,35	2.00	3.36	7.0
0028 003	0,50	2.14	4.8	9.0
0028 005	0,75	2.40	7.2	12.0
0028 007	1,00	2.54	9.6	14.5
0028 009	1,50	2.80	14.4	20.0
0028 012	2,50	3.20	24.0	30.0
LgY 750 V				
0029 001	0,35	2.40	3.36	9.0
0029 003	0,50	2.54	4.8	11.0
0029 005	0,75	2.80	7.2	14.1
0029 007	1,00	2.94	9.6	17.0
0029 010	1,50	3.20	14.4	22.4
0029 012	2,50	3.60	24.0	32.6

Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
LgYc 500 V				
0031 001	0,35	2.00	3.36	7.0
0031 002	0,50	2.14	4.8	9.0
0031 003	0,75	2.40	7.2	12.0
0031 004	1,00	2.54	9.6	14.5
0031 005	1,50	2.80	14.4	20.0
0031 006	2,50	3.20	24.0	30.0
LgYc 750 V				
0032 001	0,35	2.40	3.36	9.0
0032 002	0,50	2.54	4.8	11.0
0032 003	0,75	2.80	7.2	14.1
0032 004	1,00	2.94	9.6	17.0
0032 006	1,50	3.20	14.4	22.4
0032 008	2,50	3.60	24.0	32.6
0032 009	4	4.6	38.4	53.9

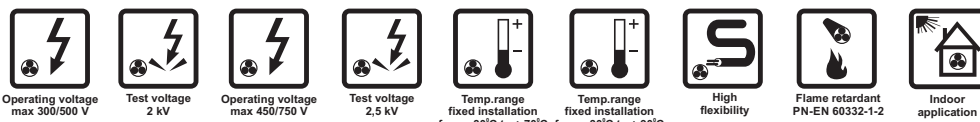
Other conductor cross-sections available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## H05V-K; H07V-K

### SINGLE WIRES



### APPLICATIONS

**H05V-K** and **H07V-K** are power flexible single wires intended for interconnection in electrical equipment. Wires can be applied in control cabinets, electronic equipment and others. They are also used in lighting devices and systems.

The wires are suitable for indoor installations.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation - coloured according to customer's requirement.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage U <sub>0</sub> /U		Operating temperature range	from - 30 to + 70°C
wires H05V-K	300/500 V	Minimum bending radius	12.5 x wire diameter
wires H07V-K	450/750 V	Wire combustibility	flame retardant
Voltage test		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
wires H05V-K	2000 V rms	Reference standards	PN-EN-50525-2-31
wires H07V-K	2500 V rms		

Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
H05V-K				
0015 002	1 x 0,50	2,14	4,8	9,0
0015 003	1 x 0,75	2,40	7,2	12,0
0015 001	1 x 1,00	2,54	9,6	14,5
H07V-K				
1100 004	1 x 1,50	2,88	14,4	19,0
1100 003	1 x 2,5	3,49	24,0	29,0

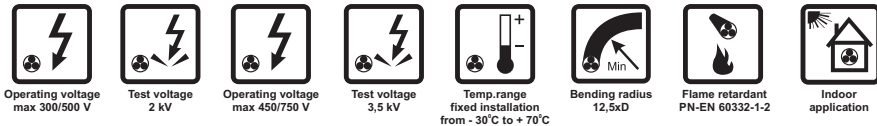
Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1100 001	1 x 4	4.00	38.4	43.0
1100 005	1 x 6	4.57	57.6	61
1100 006	1 x 10	6.10	96.0	120.0
1100 007	1 x 16	7.20	154.0	181.0
1100 008	1 x 25	8.90	240.0	274.0
1100 009	1 x 35	10.1	336.0	380.0
1100 002	1 x 50	12.4	480.0	545.0

Other conductor cross-sections available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

**LY 500 V; LY 750 V**  
**LYc 500 V; LYc 750 V**

**POWER SINGLE WIRES**



Operating voltage max 300/500 V    Test voltage 2 kV    Operating voltage max 450/750 V    Test voltage 3,5 kV    Temp. range fixed installation from - 30°C to + 70°C    Bending radius 12,5xD    Flame retardant PN-EN 60332-1-2    Indoor application

**APPLICATIONS**

LY and LYc are power flexible single wires intended for interconnection in electrical equipment. Wires can be applied in control cabinets, electronic equipment and others. They are also used in lighting devices and systems.

**CONSTRUCTION**

- multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation - **LY** wires,
- heat resistant PVC insulation (PVC 90°C)- **LYc** wires,
- identification colour code in accordance with PN-87/E-90050.

**AVAILABLE UPON REQUEST**

**LYc 105°C** - wires with heat resistant PVC insulation up to 105°C.

**LY-LSF** - wires with special LSF PVC insulation. LSF PVC is selfextinguishing and flame retardant with low emission of toxic and corrosive fumes.

**H05V-R** and **H07V-R** - wires made of according to PN-EN-50525-2-31 standard.

**LY 500 V; LY 750 V**  
**LYc 500 V; LYc 750 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	0.50	0.75	1.0	1.5	2.5	4.0	6.0
DC conductor resistance at 20°C, maximum	Ω/km	36.0	24.5	18.1	12.1	7.41	4.61	3.08
Insulation resistance for PVC at 70°C and for heat resistant PVC at 95°C, minimum	MΩ·km	0.013	0.011	0.010	0.0091	0.0074	0.0069	0.0059
LY 500, LYc 500		0.016	0.014	0.012	0.011	0.0093	0.0084	0.0072
LY 750, LYc 750								
Conductor cross-section	mm <sup>2</sup>	10	16	25	35	50	70	
DC conductor resistance at 20°C, maximum	Ω/km	1.83	1.15	0.727	0.524	0.387	0.268	
Insulation resistance for PVC at 70°C and for heat resistant PVC at 95°C, minimum	MΩ·km	0.0068	0.0056	0.0053	0.0046	0.0042	0.0042	
LY 750, LYc 750								

Operating voltage Uo/U

wires 500 V 300/500 V  
wires 750 V 450/750 V

Voltage test

wires 500 V 2000 V rms  
wires 750 V 3500 V rms

Operating temperature range

LY from - 30 to + 70°C  
LYc from - 30 to + 90°C

Minimum bending radius

up to 8 mm 4 x wire diameter  
from 8 to 12 mm 5 x wire diameter  
from 12 mm 6 x wire diameter

Wire combustibility

flame retardant

Combustibility tests

PN-EN 60332-1-2, IEC 60332-1-2

Reference standards

PN-87/E-90050, PN-87/E-90054

Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
LY 500 V				
0863 005	0,50	2.1	4.9	8.5
0863 006	0,75	2.3	7.2	11.5
0863 003	1,00	2.5	9.6	15.0
0863 004	1,50	2.8	14.4	20.2
0863 007	2,50	3.2	24.0	30.8
LY 750 V				
0729 014	0,50	2.5	4.8	10.6
0729 015	0,75	2.7	7.2	13.7
0729 026	1,00	2.9	9.6	17.4
0729 016	1,50	3.2	14.4	22.8
0729 017	2,50	3.7	24.0	33.8
0729 018	4,00	4.4	38.4	52.3
0729 019	6,00	5.0	57.6	74.9
0729 020	10,0	6.3	96.0	117.0
0729 021	16,0	7.3	153.6	176.0
0729 022	25,0	9.0	240.0	270.0
0729 023	35,0	10.2	336.0	365.0
0729 024	50,0	12.1	480.0	495.0
0729 025	70,0	13.6	672.0	680.0

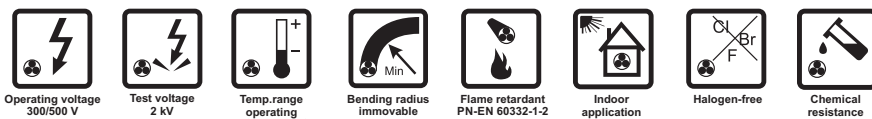
Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
LYc 500 V				
0863 008	0,50	2.1	4.9	8.5
0863 002	0,75	2.3	7.2	11.5
0863 001	1,00	2.5	9.6	15.0
0863 009	1,50	2.8	14.4	20.2
0863 010	2,50	3.2	24.0	30.8
LYc 750 V				
0729 003	0,50	2.5	4.8	10.6
0729 002	0,75	2.7	7.2	13.7
0729 001	1,00	2.9	9.6	17.4
0729 004	1,50	3.2	14.4	22.8
0729 005	2,50	3.7	24.0	33.8
0729 006	4,00	4.4	38.4	52.3
0729 007	6,00	5.0	57.6	74.9
0729 008	10,0	6.3	96.0	117.0
0729 009	16,0	7.3	153.6	176.0
0729 010	25,0	9.0	240.0	270.0
0729 011	35,0	10.2	336.0	365.0
0729 012	50,0	12.1	480.0	495.0
0729 013	70,0	13.6	672.0	680.0

Other conductor cross-sections available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## H05S-U

### HEAT RESISTANT SILICONE INSULATED WIRES



### APPLICATIONS

**H05S-U** are silicone insulated wires intended for use in wide range of temperature. The wires are suitable for industrial applications, such as steel plants or cement, glass and ceramic factories. They are also used in lighting devices and systems.

The wires are halogen free, as well oil and chemical resistant.

### CONSTRUCTION

- tin-plated annealed copper single wire round conductors,
- silicone insulation, colours of insulation according to customer requirements.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0,5	0,75	1,0	1,5	2,5
DC conductor resistance at 20°C, maximum	Ω/km	36.7	24.8	18.2	12.2	7.58

Operating voltage U <sub>0</sub> /U	300/500 V	Minimum bending radius for fixed installation	4 x cable diameter
Voltage test	2000 V rms	Halogen-free	PN-EN 60754-1, PN-EN 60754-2
Insulation resistance, minimum	20 MΩ·km	Cable combustibility	flame retardant
Conductor temperature limit (adequate ventilation provided) temporary	from - 60 to + 180°C + 200°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50525-2-41

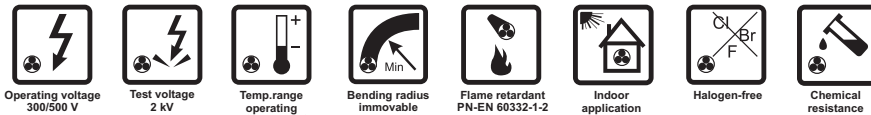
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1753 001	1 x 0,50	2.4	4.8	7.7
1753 002	1 x 0,75	2.6	7.2	10.7
1753 003	1 x 1,0	2.8	9.6	12.8
1753 004	1 x 1,5	3.2	14.4	18.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1753 005	1 x 2,5	3.8	24.0	28.9

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## SiD

### HEAT RESISTANT SILICONE INSULATED WIRES



### APPLICATIONS

SiD are silicone insulated wires intended for use in wide range of temperature. The wires are suitable for industrial applications, such as steel plants or cement, glass and ceramic factories. They are also used in lighting devices and systems.

The wires are halogen free, as well oil and chemical resistant.

### CONSTRUCTION

- tin-plated annealed copper single wire round conductors,
- silicone insulation, colours of insulation according to customer requirements.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0,5	0,75	1,0	1,5	2,5	4,0	6,0
DC conductor resistance at 20°C, maximum	Ω/km	36.7	24.8	18.2	12.2	7.58	4.70	3.11

Operating voltage U <sub>0</sub> /U	300/500 V	Minimum bending radius for fixed installation	4 x cable diameter
Voltage test	2000 V rms	Halogen-free	PN-EN 60754-1, PN-EN 60754-2
Insulation resistance, minimum	20 MΩ·km	Cable combustibility	flame retardant
Conductor temperature limit (adequate ventilation provided) temporary	from - 60 to + 180°C + 200°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

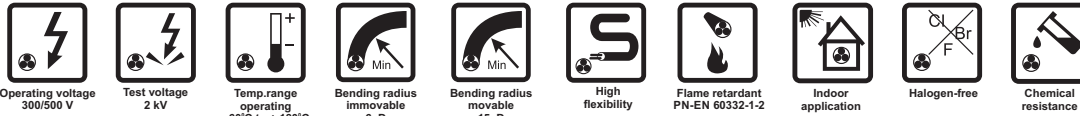
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1754 001	1 x 0,50	2.0	4.8	7.7
1754 002	1 x 0,75	2.2	7.2	10.4
1754 003	1 x 1,0	2.3	9.6	12.8
1754 004	1 x 1,5	2.6	14.4	18.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1754 005	1 x 2,5	3.2	24.0	28.9
1754 006	1 x 4,0	3.9	38.4	45.4
1754 007	1 x 6.0	4.4	57.6	64.5

Other cross-sections available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## H05S-K

### HEAT RESISTANT SILICONE INSULATED WIRES



### APPLICATIONS

**H05S-K** are flexible silicone insulated wires intended for use in wide range of temperature. The wires are suitable for industrial applications, such as steel plants or cement, glass and ceramic factories. They are also used in lighting devices and systems.

The wires are halogen free, as well oil and chemical resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated annealed copper wires, meeting requirements of class 5 per PN-EN 60228,
- silicone insulation, colours of insulation according to customer requirements.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0,5	0,75	1,0	1,5	2,5
DC conductor resistance at 20°C, maximum	Ω/km	40.1	26.7	20.0	13.7	8.21

Operating voltage U <sub>o</sub> /U	300/500 V	Minimum bending radius for movable installation	15 x cable diameter
Voltage test	2000 V rms	for fixed installation	6 x cable diameter
Insulation resistance, minimum	20 MΩ·km	Halogen-free	PN-EN 60754-1, PN-EN 60754-2
Conductor temperature limit (adequate ventilation provided) temporary	from - 60 to + 180°C + 200°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50525-2-41

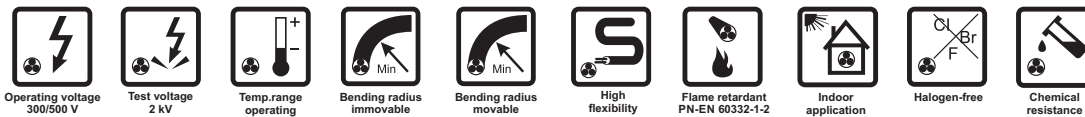
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1755 001	1 x 0,50	2.6	4.8	11.4
1755 002	1 x 0,75	2.8	7.2	15.3
1755 003	1 x 1,0	2.9	9.6	18.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1755 004	1 x 1,5	3.4	14.4	25.8
1755 005	1 x 2,5	4.0	24.0	39.1

Other cross-sections available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## SiF

### HEAT RESISTANT SILICONE INSULATED WIRES



### APPLICATIONS

SiF are flexible silicone insulated wires intended for use in wide range of temperature. The wires are suitable for industrial applications, such as steel plants or cement, glass and ceramic factories. They are also used in lighting devices and systems.

The wires are halogen free, as well oil and chemical resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated annealed copper wires, meeting requirements of class 5 per PN-EN 60228,
- silicone insulation, colours of insulation according to customer requirements.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0,5</b>	<b>0,75</b>	<b>1,0</b>	<b>1,5</b>	<b>2,5</b>	<b>4,0</b>
DC conductor resistance at 20°C, maximum	Ω/km	40.1	26.7	20.0	13.7	8.21	5.09
Conductor cross-section	mm <sup>2</sup>	<b>6,0</b>	<b>10,0</b>	<b>16,0</b>	<b>25,0</b>	<b>35,0</b>	<b>50,0</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.39	1.95	1.24	0.795	0.565	0.393

Operating voltage U <sub>o</sub> /U	300/500 V	Minimum bending radius for movable installation	15 x cable diameter
Voltage test	2000 V rms	for fixed installation	6 x cable diameter
Insulation resistance, minimum	20 MΩ·km	Halogen-free	PN-EN 60754-1, PN-EN 60754-2
Conductor temperature limit (adequate ventilation provided) temporary	from - 60 to + 180°C + 200°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1314 006	1 x 0,50	2.1	4.8	5.4
1314 007	1 x 0,75	2.4	7.2	11.3
1314 003	1 x 1,0	2.5	9.6	13.7
1314 001	1 x 1,5	2.8	14.4	18.8
1314 002	1 x 2,5	3.4	24.0	30.2
1314 008	1 x 4,0	4.2	38.4	47.7

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1314 009	1 x 6,0	5.0	57.6	70.9
1314 010	1 x 10,0	6.6	96.0	119.7
1314 011	1 x 16,0	7.4	154.0	187.4
1314 012	1 x 25,0	9.2	240.0	289.9
1314 013	1 x 35,0	10.3	336.0	398.7
1314 014	1 x 50,0	12.2	480.0	559.3

Other cross-sections available on request.  
TECHNOKABEL S.A. reserves the right to changespecifications without prior notice.

## Li91Y-Nr 0,6/1 kV

### POWER SINGLE WIRES FOR WIDE RANGE OF TEMPERATURE +125 ÷ -60°C



## APPLICATIONS

Li91Y-Nr are power single wires intended for interconnection in electrical equipment. Wires can be applied in control cabinets, electronic equipment and others. They are also used in lighting devices and systems.

Good flexibility of wire in wide range of temperature is achieved by thermoplastic elastomer (TPE) insulation.

Wires are flame retardant as well as UV radiation and oil resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- thermoplastic elastomer (TPE) insulation,
- identification colour code - black and white conductor number printed on it,
- in case of multiwire cables, insulated conductors twisted into pairs, triads or quads.

## CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.50	0.75	1.0	1.5	2.5	4.0	6.0
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26	19.5	13.3	7.98	4.95	3.3

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Operating temperature range	from - 60 to + 125°C
Voltage test	3500 V rms	Minimum bending radius	7.5 x wire diameter
Insulation resistance, minimum	20 MΩ·km	Wire combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DT-84

Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0722 011	1 x 2,5	3.6	24.0	33.0
0722 007	1 x 4,0	4.6	38.4	53.0
0722 008	1 x 6,0	5.2	57.6	73.0

Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0722 001	2 x 2,5	7.2	48.0	66.0
0722 005	2 x 4,0	9.2	76.8	106.0
0722 002	2 x 6,0	10.4	115.0	148.0

Other conductor cross-sections available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## TECHNORAY-3

### RAILWAY WIRES



Operating voltage  
0,6/1 kV



Test voltage  
3,5 kV



Temp. range  
operating  
-40°C to +120°C



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-22



Indoor  
application



Increased  
oil resistance



Halogen-free



Non-corrosive



Low smoke  
density



Non-toxic

## APPLICATIONS

**TECHNORAY3** halogen free single-core wires are intended for fixed and mobile connections in vehicles, rolling stock and transport. Wires can also be used for control, protection and monitoring systems or power supply.

The wires are designed to offer high flexibility combined with tensile strength.

Continuous operation at higher temperatures and a high level of fire safety is offered due to application of **electron beam crosslinked halogen free compound** insulation.

Halogen free wires are applied in locations where, in case of fire, higher safety level for human beings and expensive electronic equipment is required. The wires are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The wires are designed for frequent contact with petroleum products. The wire insulation is then made of special halogen free compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

Wires are **approved by the Institute of Railways** for use in vehicles, rolling stock and transport.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tinned copper wires, meeting requirements of class 5 per PN-EN 60228,
- dual wall insulation made of electron beam crosslinked halogen free compound (EI 104), black, other colours also available.

## TECHNORAY- 3

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>	<b>6</b>
DC conductor resistance at 20°C, maximum	Ω/km	40.1	26.7	20.0	13.7	8.21	5.09	3.39
Conductor cross-section	mm <sup>2</sup>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	<b>70</b>	<b>95</b>
DC conductor resistance at 20°C, maximum	Ω/km	1.95	1.24	0.795	0.565	0.393	0.277	0.210

Operating voltage U <sub>o</sub> /U	600/1000 V	Operating temperature range	from - 40 to + 120°C (20 000 h)
Voltage test	3.5 kV rms	Minimum bending radius: for fixed installation	D≤10 mm - 3 x wire diameter D>10 mm - 4 x wire diameter
Corrosivity of emitted gases per pH appr. conductivity appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2 6 0.8 μS/mm	for movable installation	D≤10 mm - 5 x wire diameter D>10 mm - 6 x wire diameter
Smoke density light transmittance, minimum	PN-EN 61034-2, IEC 61034-2 90 %	Wire combustibility Combustibility tests	flame retardant PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-22, IEC 60332-3-22 (cat. A) PN-K-02508
		Oil resistance	PN-EN 60811-404
		Reference standards	PN-EN 50264-2-1, PN-K-02511

Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/100 m
1288 018	0,5	2.1	4.8	0.9
1288 019	0,75	2.4	7.2	1.2
1288 010	1,0	2.9	9.6	1.7
1288 005	1,5	3.2	14.4	2
1288 007	2,5	3.6	24	3
1288 011	4	4.1	38.4	4.5
1288 012	6	4.8	58	7

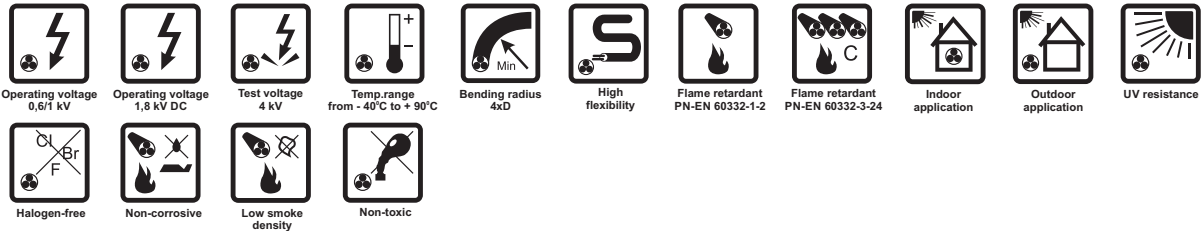
Product No.	Conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/100 m
1288 020	10	6.2	96	11
1288 013	16	7.3	154	16
1288 014	25	8.9	240	25
1288 015	35	10.1	336	35
1288 016	50	11.8	480	49
1288 017	70	13.5	672	67

Other cross-sections available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## SOLARTECH-4

### FLEXIBLE PHOTOVOLTAIC CABLES



### APPLICATIONS

**SOLARTECH4** halogen free flexible single-core cables are intended for use in modern photovoltaic systems. They are designed for the connection between solar panels and inverters, in junction boxes, also for low voltage installations up to 0.6/1 kV.

Special dual insulation enhances protection against mechanical damage, also resistant to ozone, ultraviolet radiation, weathering and short-circuit as well.

Halogen free material insulated and sheathed cables are applied in locations where, in case of fire, higher safety level for human beings and expensive electronic equipment is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

Cables are oil-resistant.

The cables are suitable for indoor and outdoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of annealed tinned copper wires, meeting requirements of class 5 per PN-EN 60228,
- cross-linked halogen free insulation,
- cross-linked halogen free cable sheath,
- colours: black, red, blue, other colours also available.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, maximum	Ω/km	13.7	8.21	5.09	3.39	1.95	1.24	0.795	0.565	0.393

Operating voltage U <sub>o</sub> /U	0.6/1 kV AC 1.8 kV DC (conductor/conductor)	Smoke density	low smoke density
Voltage test	4 kV rms	PN-EN 61034-2, IEC 61034-2	light transmittance, minimum
Corrosivity of emitted gases per PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	very low	Operating temperature range	from - 40 to + 90°C
pH appr.	6.8	permanent temp. (for 20000 h)	+120°C
conductivity appr.	0.4 μS/mm	Minimum bending radius	4 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1618 002	1 x 1,5c	4.5	14.4	32.5
1618 003	1 x 2,5c	4.9	24.0	43.0

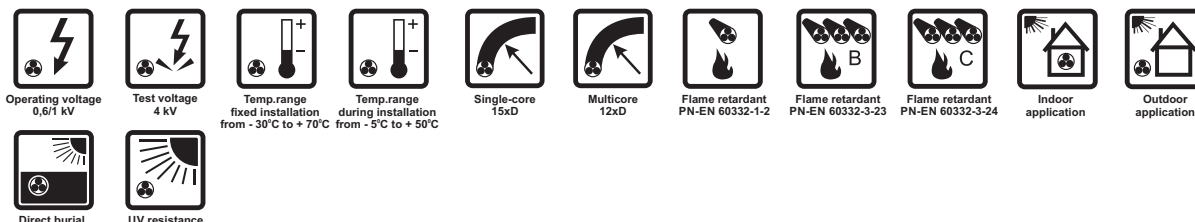
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1618 001	1 x 4c	5.3	38.4	56.0
1618 004	1 x 6c	6.1	58.0	79.0

Other cross-sections available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YnKXSzo 0,6/1 kV, YnKXS 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED POWER CABLES



## APPLICATIONS

YnKXSzo 0,6/1 kV and YnKXS 0,6/1 kV power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in YnKXSzo 0,6/1 kV cable,
- insulated conductors laid-up in a cable core,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**YKXSzo-O 0,6/1 kV** and **YKXS-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSzo 0,6/1 kV** and **XnKXS 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire or steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YnKXSzo 0,6/1 kV, YnKXS 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit in work conditions	+ 90°C	Minimum bending radius	
in short-circuit	+ 250°C	single wire cables	15 x cable diameter
		multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YnKXS 0,6/1 kV					
0876 032	1x1 RE	4.8	18.1	9.6	36
0876 033	1x1,5 RE	5.1	12.1	14.4	43
0876 034	1x2,5 RE	5.4	7.41	24.0	54
0876 035	1x4 RE	5.9	4.61	38.4	70
0876 036	1x6 RE	6.4	3.08	57.6	91
0876 037	1x10 RE	7.2	1.83	96.0	133
0876 038	1x16 RE	8.1	1.15	153.6	191
0876 024	1x25 RM	10.0	0.727	240.0	286
0876 039	1x35 RM	11.0	0.524	336.0	379
0876 040	1x50 RM	12.4	0.387	480.0	505
0876 020	1x70 RM	14.4	0.268	672.0	712
0876 023	1x95 RM	16.3	0.193	912.0	1005
0876 006	1x120 RM	18.0	0.153	1152.0	1198
0876 021	1x150 RM	20.1	0.124	1440.0	1503
0876 025	1x185 RM	22.5	0.0991	1776.0	1874
0876 015	1x240 RM	25.1	0.0754	2304.0	2434
0876 026	1x300 RM	27.1	0.0601	2880.0	2954
0876 027	1x400 RM	30.3	0.0470	3840.0	4022
0876 013	1x500 RM	33.7	0.0366	4800.0	5028
YnKXS 0,6/1 kV					
0876 018	2x1 RE	7.7	18.1	19.2	88
0876 001	2x1,5 RE	8.2	12.1	28.8	104
0876 030	2x2,5 RE	9.0	7.41	48.0	134
0876 016	2x4 RE	9.9	4.61	76.8	176
0876 031	2x6 RE	10.9	3.08	115.2	229
0876 041	2x10 RE	12.5	1.83	192.0	331
0876 042	2x16 RE	14.8	1.15	307.2	501
0876 029	2x25 RM	18.5	0.727	480.0	768
0876 028	2x35 RM	20.6	0.524	672.0	1005
YnKXSzo 0,6/1 kV					
0921 046	3x1 RE	8.1	18.1	28.8	100
0921 017	3x1,5 RE	8.6	12.1	43.2	120
0921 047	3x2,5 RE	9.4	7.41	72.0	157
0921 007	3x4 RE	10.4	4.61	115.2	212
0921 018	3x6 RE	11.5	3.08	172.8	282
0921 009	3x10 RE	13.2	1.83	288.0	417
0921 010	3x16 RE	15.7	1.15	460.8	638
0921 030	3x25 RM	19.7	0.727	720.0	978
0921 044	3x35 RM	22.0	0.524	1008.0	1295
0921 048	3x50 SM	23.1	0.387	1440.0	1740
0921 049	3x70 SM	27.0	0.268	2016.0	2212

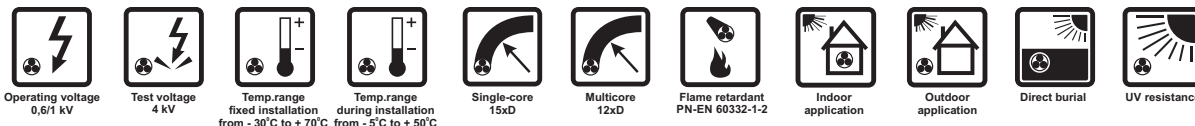
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
0921 050	3x95 SM	30.7	0.193	2736.0	3089
0921 051	3x120 SM	34.4	0.153	3456.0	3750
0921 052	3x150 SM	38.6	0.124	4320.0	4716
0921 053	3x185 SM	43.2	0.0991	5328.0	5884
0921 054	3x240 SM	48.3	0.0754	6912.0	7606
YnKXSzo 0,6/1 kV					
0921 055	4x1 RE	8.7	18.1	38.4	116
0921 020	4x1,5 RE	9.3	12.1	57.6	143
0921 004	4x2,5 RE	10.2	7.41	96.0	189
0921 001	4x4 RE	11.3	4.61	153.6	260
0921 002	4x6 RE	12.5	3.08	230.4	348
0921 011	4x10 RE	14.4	1.83	384.0	522
0921 006	4x16 RE	17.1	1.15	614.4	798
0921 013	4x25 RM	21.6	0.727	960.0	1228
0921 014	4x35 RM	24.4	0.524	1344.0	1647
0921 056	4x50 SM	25.6	0.387	1920.0	2216
0921 057	4x70 SM	30.0	0.268	2688.0	2822
0921 058	4x95 SM	34.4	0.193	3648.0	3990
0921 059	4x120 SM	38.5	0.153	4608.0	4823
0921 060	4x150 SM	42.9	0.124	5760.0	6032
0921 061	4x185 SM	48.2	0.0991	7104.0	7552
0921 062	4x240 SM	53.8	0.0754	9216.0	9773
YnKXSzo 0,6/1 kV					
0921 063	5x1 RE	9.3	18.1	48.0	135
0921 033	5x1,5 RE	10.0	12.1	72.0	167
0921 024	5x2,5 RE	11.0	7.41	120.0	225
0921 021	5x4 RE	12.3	4.61	192.0	311
0921 032	5x6 RE	13.6	3.08	288.0	419
0921 012	5x10 RE	15.8	1.83	480.0	634
0921 005	5x16 RE	18.7	1.15	768.0	968
0921 003	5x25 RM	24.0	0.727	1200.0	1509
0921 015	5x35 RM	27.0	0.524	1680.0	2021
0921 064	5x50 SM	28.4	0.387	2400.0	2727
0921 065	5x70 SM	33.7	0.268	3360.0	3506
0921 066	5x95 SM	38.4	0.193	4560.0	4930
0921 067	5x120 SM	42.6	0.153	5760.0	5928
0921 045	5x150 SM	47.7	0.124	7200.0	7446
0921 068	5x185 SM	53.6	0.0991	8880.0	9312
0921 069	5x240 SM	59.9	0.0754	11520.0	12059

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKXSžo 0,6/1 kV, YKXS 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED POWER CABLES



### APPLICATIONS

**YKXSžo 0,6/1 kV** and **YKXS 0,6/1 kV** power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSžo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- black PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**YKXSžo-O 0,6/1 kV** and **YKXS-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSžo 0,6/1 kV** and **XnKXS 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKXSzo 0,6/1 kV, YKXS 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 90°C	single wire cables	15 x cable diameter
in short-circuit	+ 250°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

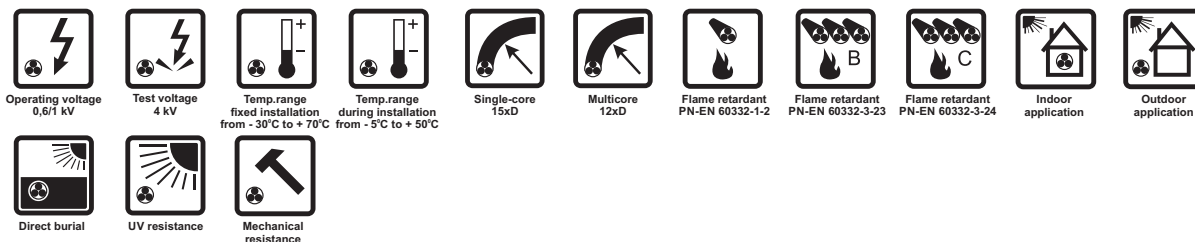
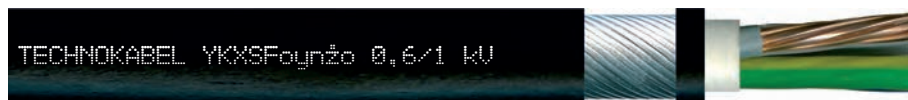
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKXS 0,6/1 kV					
0556 040	1x1 RE	4.8	18.1	9.6	36
0556 041	1x1,5 RE	5.1	12.1	14.4	43
0556 042	1x2,5 RE	5.4	7.41	24.0	54
0556 034	1x4 RE	5.9	4.61	38.4	70
0556 043	1x6 RE	6.4	3.08	57.6	91
0556 044	1x10 RE	7.2	1.83	96.0	133
0556 035	1x16 RE	8.1	1.15	153.6	191
0556 023	1x25 RM	10.0	0.727	240.0	286
0556 024	1x35 RM	11.0	0.524	336.0	379
0556 025	1x50 RM	12.4	0.387	480.0	505
0556 020	1x70 RM	14.4	0.268	672.0	712
0556 026	1x95 RM	16.3	0.193	912.0	1005
0556 018	1x120 RM	18.0	0.153	1152.0	1198
0556 021	1x150 RM	20.1	0.124	1440.0	1503
0556 015	1x185 RM	22.5	0.0991	1776.0	1874
0556 014	1x240 RM	25.1	0.0754	2304.0	2434
0556 022	1x300 RM	27.1	0.0601	2880.0	2954
0556 045	1x400 RM	30.3	0.0470	3840.0	4022
0556 046	1x500 RM	33.7	0.0366	4800.0	5028
YKXS 0,6/1 kV					
0556 047	2x1 RE	7.7	18.1	19.2	88
0556 036	2x1,5 RE	8.2	12.1	28.8	104
0556 037	2x2,5 RE	9.0	7.41	48.0	134
0556 048	2x4 RE	9.9	4.61	76.8	176
0556 049	2x6 RE	10.9	3.08	115.2	229
0556 050	2x10 RE	12.5	1.83	192.0	331
0556 051	2x16 RE	14.8	1.15	307.2	501
0556 038	2x25 RM	18.5	0.727	480.0	768
0556 039	2x35 RM	20.6	0.524	672.0	1005
YKXSzo 0,6/1 kV					
0622 025	3x1 RE	8.1	18.1	28.8	100
0622 004	3x1,5 RE	8.6	12.1	43.2	120
0622 001	3x2,5 RE	9.4	7.41	72.0	157
0622 026	3x4 RE	10.4	4.61	115.2	212
0622 008	3x6 RE	11.5	3.08	172.8	282
0622 007	3x10 RE	13.2	1.83	288.0	417
0622 009	3x16 RE	15.7	1.15	460.8	638
0622 024	3x25 RM	19.7	0.727	720.0	978
0622 014	3x35 RM	22.0	0.524	1008.0	1295
0622 027	3x50 SM	23.1	0.387	1440.0	1740
0622 028	3x70 SM	27.0	0.268	2016.0	2212

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
0622 029	3x95 SM	30.7	0.193	2736.0	3089
0622 030	3x120 SM	34.4	0.153	3456.0	3750
0622 031	3x150 SM	38.6	0.124	4320.0	4716
0622 032	3x185 SM	43.2	0.0991	5328.0	5884
0622 033	3x240 SM	48.3	0.0754	6912.0	7606
YKXSzo 0,6/1 kV					
0622 034	4x1 RE	8.7	18.1	38.4	116
0622 023	4x1,5 RE	9.3	12.1	57.6	143
0622 035	4x2,5 RE	10.2	7.41	96.0	189
0622 010	4x4 RE	11.3	4.61	153.6	260
0622 011	4x6 RE	12.5	3.08	230.4	348
0622 006	4x10 RE	14.4	1.83	384.0	522
0622 036	4x16 RE	17.1	1.15	614.4	798
0622 037	4x25 RM	21.6	0.727	960.0	1228
0622 022	4x35 RM	24.4	0.524	1344.0	1647
0622 038	4x50 SM	25.6	0.387	1920.0	2216
0622 039	4x70 SM	30.0	0.268	2688.0	2822
0622 040	4x95 SM	34.4	0.193	3648.0	3990
0622 041	4x120 SM	38.5	0.153	4608.0	4823
0622 042	4x150 SM	42.9	0.124	5760.0	6032
0622 043	4x185 SM	48.2	0.0991	7104.0	7552
0622 044	4x240 SM	53.8	0.0754	9216.0	9773
YKXSzo 0,6/1 kV					
0622 045	5x1 RE	9.3	18.1	48.0	135
0622 016	5x1,5 RE	10.0	12.1	72.0	167
0622 020	5x2,5 RE	11.0	7.41	120.0	225
0622 018	5x4 RE	12.3	4.61	192.0	311
0622 017	5x6 RE	13.6	3.08	288.0	419
0622 002	5x10 RE	15.8	1.83	480.0	634
0622 005	5x16 RE	18.7	1.15	768.0	968
0622 012	5x25 RM	24.0	0.727	1200.0	1509
0622 003	5x35 RM	27.0	0.524	1680.0	2021
0622 046	5x50 SM	28.4	0.387	2400.0	2727
0622 047	5x70 SM	33.7	0.268	3360.0	3506
0622 048	5x95 SM	38.4	0.193	4560.0	4930
0622 049	5x120 SM	42.6	0.153	5760.0	5928
0622 050	5x150 SM	47.7	0.124	7200.0	7446
0622 051	5x185 SM	53.6	0.0991	8880.0	9312
0622 052	5x240 SM	59.9	0.0754	11520.0	12059

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKXSFOynżo 0,6/1 kV, YKXSFOyn 0,6/1 kV

### XLPE INSULATED AND SHEATHED, STEEL WIRE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

YKXSFOynżo 0,6/1 kV and YKXSFOyn 0,6/1 kV armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:

- RE** - class 1 circular single-wire,
- RM** - class 2 circular multi-wire,
- SM** - class 2 sector shaped multi-wire.

- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSFOynżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPONREQUEST

**YKXSFOynżo-O 0,6/1 kV** and **YKXSFOyn-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSFOynżo 0,6/1 kV** and **XnKXSFOyn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.



## YKXS Foyńżo 0,6/1 kV, YKXS Foyńżo 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	from - 30 to + 70°C
Voltage test	4 kV rms	during operation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	during installation	
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 90°C	single wire cables	12 x cable diameter
in short-circuit	+ 250°C	multi wire cables	
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKXS Foyńżo 0,6/1 kV					
1802 002	2x1 RE	11.0	18.1	19.2	266
1802 003	2x1,5 RE	11.5	12.1	28.8	295
1802 004	2x2,5 RE	12.3	7.41	48.0	345
1802 005	2x4 RE	13.2	4.61	76.8	406
1802 001	2x6 RE	14.2	3.08	115.2	480
1802 006	2x10 RE	16.0	1.83	192.0	630
1802 007	2x16 RE	17.8	1.15	307.2	815
1802 008	2x25 RM	22.4	0.727	480.0	1316
1802 009	2x35 RM	25.2	0.524	672.0	1665
YKXS Foyńżo 0,6/1 kV					
1617 014	3x1 RE	11.4	18.1	28.8	290
1617 015	3x1,5 RE	11.9	12.1	43.2	318
1617 006	3x2,5 RE	12.7	7.41	72.0	374
1617 002	3x4 RE	13.7	4.61	115.2	450
1617 003	3x6 RE	14.8	3.08	172.8	546
1617 016	3x10 RE	16.7	1.83	288.0	729
1617 004	3x16 RE	18.7	1.15	460.8	969
1617 010	3x25 RM	23.8	0.727	720.0	1573
1617 012	3x35 RM	26.8	0.524	1008.0	2009
1617 017	3x50 SM	27.3	0.387	1440.0	2533
1617 018	3x70 SM	32.2	0.268	2016.0	3246
1617 019	3x95 SM	35.9	0.193	2736.0	4251
1617 020	3x120 SM	40.3	0.153	3456.0	5324
1617 021	3x150 SM	44.7	0.124	4320.0	6526
1617 022	3x185 SM	50.5	0.0991	5328.0	8396
1617 023	3x240 SM	55.9	0.0754	6912.0	10481
YKXS Foyńżo 0,6/1 kV					
1617 024	4x1 RE	12.0	18.1	38.4	319
1617 025	4x1,5 RE	12.6	12.1	57.6	358
1617 001	4x2,5 RE	13.5	7.41	96.0	425
1617 026	4x4 RE	14.6	4.61	153.6	516

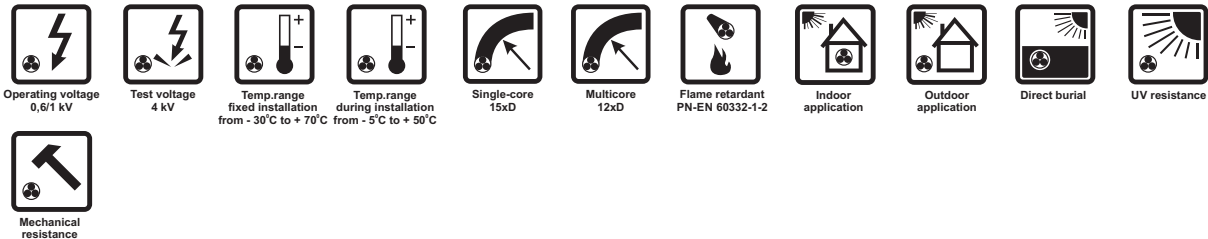
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
1617 027	4x6 RE	16.0	3.08	230.4	645
1617 028	4x10 RE	17.9	1.83	384.0	860
1617 029	4x16 RE	21.0	1.15	614.4	1306
1617 030	4x25 RM	25.7	0.727	960.0	1874
1617 031	4x35 RM	29.0	0.524	1344.0	2427
1617 032	4x50 SM	30.4	0.387	1920.0	3274
1617 033	4x70 SM	35.1	0.268	2688.0	3966
1617 034	4x95 SM	40.3	0.193	3648.0	5567
1617 035	4x120 SM	44.5	0.153	4608.0	6613
1617 036	4x150 SM	49.1	0.124	5760.0	8041
1617 037	4x185 SM	55.8	0.0991	7104.0	10432
1617 038	4x240 SM	61.3	0.0754	9216.0	12943
YKXS Foyńżo 0,6/1 kV					
1617 039	5x1 RE	12.6	18.1	48.0	351
1617 040	5x1,5 RE	13.3	12.1	72.0	397
1617 041	5x2,5 RE	14.3	7.41	120.0	474
1617 042	5x4 RE	15.8	4.61	192.0	601
1617 007	5x6 RE	17.1	3.08	288.0	736
1617 008	5x10 RE	19.5	1.83	480.0	1015
1617 009	5x16 RE	22.6	1.15	768.0	1515
1617 011	5x25 RM	28.1	0.727	1200.0	2219
1617 013	5x35 RM	32.2	0.524	1680.0	3042
1617 043	5x50 SM	33.6	0.387	2400.0	3937
1617 044	5x70 SM	38.8	0.268	3360.0	4779
1617 045	5x95 SM	44.4	0.193	4560.0	6719
1617 046	5x120 SM	48.7	0.153	5760.0	7911
1617 047	5x150 SM	55.2	0.124	7200.0	10257
1617 048	5x185 SM	61.1	0.0991	8880.0	12444
1617 049	5x240 SM	68.5	0.0754	11520.0	16369

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKXSFOyżo 0,6/1 kV, YKXSFOy 0,6/1 kV

### XLPE INSULATED AND SHEATHED, STEEL WIRE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKXSFOyżo 0,6/1 kV** and **YKXSFOy 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSFOyżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKXSFOyżo-O 0,6/1 kV** and **YKXSFOy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSFOxnżo 0,6/1 kV** and **XnKXSFOxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKXS Foyžo 0,6/1 kV, YKXS Foy 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 90°C	single wire cables	15 x cable diameter
in short-circuit	+ 250°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

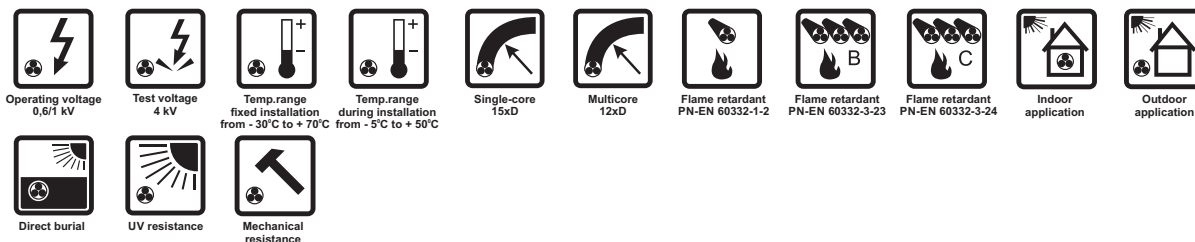
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
YKXS Foy 0,6/1 kV					
1354 011	2x1 RE	11.0	18.1	19.2	266
1354 012	2x1,5 RE	11.5	12.1	28.8	295
1354 010	2x2,5 RE	12.3	7.41	48.0	345
1354 013	2x4 RE	13.2	4.61	76.8	406
1354 014	2x6 RE	14.2	3.08	115.2	480
1354 015	2x10 RE	16.0	1.83	192.0	630
1354 016	2x16 RE	17.8	1.15	307.2	815
1354 017	2x25 RM	22.4	0.727	480.0	1316
1354 018	2x35 RM	25.2	0.524	672.0	1665
YKXS Foyžo 0,6/1 kV					
1366 006	3x1 RE	11.4	18.1	28.8	290
1366 013	3x1,5 RE	11.9	12.1	43.2	318
1366 008	3x2,5 RE	12.7	7.41	72.0	374
1366 014	3x4 RE	13.7	4.61	115.2	450
1366 015	3x6 RE	14.8	3.08	172.8	546
1366 011	3x10 RE	16.7	1.83	288.0	729
1366 016	3x16 RE	18.7	1.15	460.8	969
1366 001	3x25 RM	23.8	0.727	720.0	1573
1366 017	3x35 RM	26.8	0.524	1008.0	2009
1366 018	3x50 SM	27.3	0.387	1440.0	2533
1366 019	3x70 SM	32.2	0.268	2016.0	3246
1366 020	3x95 SM	35.9	0.193	2736.0	4251
1366 021	3x120 SM	40.3	0.153	3456.0	5324
1366 022	3x150 SM	44.7	0.124	4320.0	6526
1366 023	3x185 SM	50.5	0.0991	5328.0	8396
1366 024	3x240 SM	55.9	0.0754	6912.0	10481
YKXS Foyžo 0,6/1 kV					
1366 025	4x1 RE	12.0	18.1	38.4	319
1366 026	4x1,5 RE	12.6	12.1	57.6	358
1366 009	4x2,5 RE	13.5	7.41	96.0	425
1366 010	4x4 RE	14.6	4.61	153.6	516

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
1366 027	4x6 RE	16.0	3.08	230.4	645
1366 028	4x10 RE	17.9	1.83	384.0	860
1366 029	4x16 RE	21.0	1.15	614.4	1306
1366 012	4x25 RM	25.7	0.727	960.0	1874
1366 030	4x35 RM	29.0	0.524	1344.0	2427
1366 031	4x50 SM	30.4	0.387	1920.0	3274
1366 032	4x70 SM	35.1	0.268	2688.0	3966
1366 033	4x95 SM	40.3	0.193	3648.0	5567
1366 034	4x120 SM	44.5	0.153	4608.0	6613
1366 035	4x150 SM	49.1	0.124	5760.0	8041
1366 036	4x185 SM	55.8	0.0991	7104.0	10432
1366 037	4x240 SM	61.3	0.0754	9216.0	12943
YKXS Foyžo 0,6/1 kV					
1366 038	5x1 RE	12.6	18.1	48.0	351
1366 007	5x1,5 RE	13.3	12.1	72.0	397
1366 039	5x2,5 RE	14.3	7.41	120.0	474
1366 040	5x4 RE	15.8	4.61	192.0	601
1366 041	5x6 RE	17.1	3.08	288.0	736
1366 003	5x10 RE	19.5	1.83	480.0	1015
1366 004	5x16 RE	22.6	1.15	768.0	1515
1366 042	5x25 RM	28.1	0.727	1200.0	2219
1366 043	5x35 RM	32.2	0.524	1680.0	3042
1366 044	5x50 SM	33.6	0.387	2400.0	3937
1366 045	5x70 SM	38.8	0.268	3360.0	4779
1366 046	5x95 SM	44.4	0.193	4560.0	6719
1366 047	5x120 SM	48.7	0.153	5760.0	7911
1366 048	5x150 SM	55.2	0.124	7200.0	10257
1366 049	5x185 SM	61.1	0.0991	8880.0	12444
1366 050	5x240 SM	68.5	0.0754	11520.0	16369

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKXSFTyrzo 0,6/1 kV, YKXSFTyn 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, STEEL TAPE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKXSFTyrzo 0,6/1 kV** and **YKXSFTyn 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSFTyrzo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKXSFTyrzo-O 0,6/1 kV** and **YKXSFTyn-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSFTyrzo 0,6/1 kV** and **XnKXSFTyn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKXSFTynżo 0,6/1 kV, YKXSFTyn 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 90°C	single wire cables	15 x cable diameter
in short-circuit	+ 250°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKXSFTyn 0,6/1 kV					
1803 001	2x1 RE	9.8	18.1	19.2	164
1803 002	2x1,5 RE	10.3	12.1	28.8	186
1803 003	2x2,5 RE	11.1	7.41	48.0	224
1803 004	2x4 RE	12.0	4.61	76.8	275
1803 005	2x6 RE	13.0	3.08	115.2	338
1803 006	2x10 RE	14.6	1.83	192.0	458
1803 007	2x16 RE	16.6	1.15	307.2	628
1803 008	2x25 RM	20.7	0.727	480.0	969
1803 009	2x35 RM	23.5	0.524	672.0	1273
YKXSFTynżo 0,6/1 kV					
1804 001	3x1 RE	10.2	18.1	28.8	181
1804 002	3x1,5 RE	10.7	12.1	43.2	206
1804 003	3x2,5 RE	11.5	7.41	72.0	250
1804 004	3x4 RE	12.5	4.61	115.2	316
1804 005	3x6 RE	13.6	3.08	172.8	397
1804 006	3x10 RE	15.5	1.83	288.0	557
1804 007	3x16 RE	17.5	1.15	460.8	772
1804 008	3x25 RM	21.9	0.727	720.0	1191
1804 009	3x35 RM	24.9	0.524	1008.0	1581
1804 010	3x50 SM	25.8	0.387	1440.0	2065
1804 011	3x70 SM	29.9	0.268	2016.0	2570
1804 012	3x95 SM	33.6	0.193	2736.0	3496
1804 013	3x120 SM	37.3	0.153	3456.0	4204
1804 014	3x150 SM	41.7	0.124	4320.0	5250
1804 015	3x185 SM	46.5	0.0991	5328.0	6503
1804 016	3x240 SM	51.7	0.0754	6912.0	8325
YKXSFTynżo 0,6/1 kV					
1804 017	4x1 RE	10.8	18.1	38.4	203
1804 018	4x1,5 RE	11.4	12.1	57.6	234
1804 019	4x2,5 RE	12.3	7.41	96.0	290
1804 020	4x4 RE	13.4	4.61	153.6	372

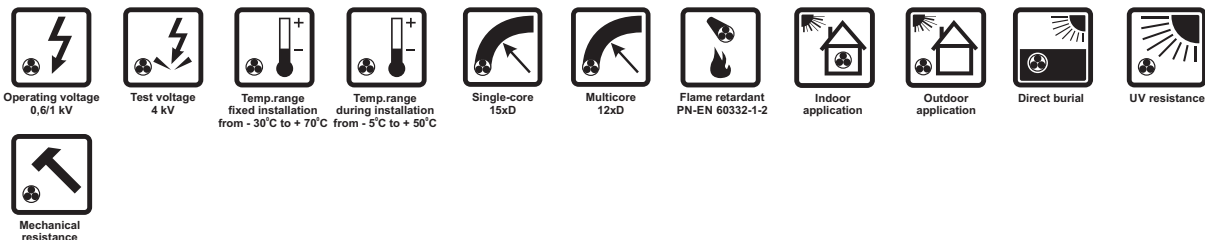
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
1804 021	4x6 RE	14.6	3.08	230.4	472
1804 022	4x10 RE	16.7	1.83	384.0	674
1804 023	4x16 RE	18.9	1.15	614.4	943
1804 024	4x25 RM	24.0	0.727	960.0	1475
1804 025	4x35 RM	27.3	0.524	1344.0	1965
1804 026	4x50 SM	28.2	0.387	1920.0	2576
1804 027	4x70 SM	32.8	0.268	2688.0	3221
1804 028	4x95 SM	37.3	0.193	3648.0	4446
1804 029	4x120 SM	41.5	0.153	4608.0	5359
1804 030	4x150 SM	46.1	0.124	5760.0	6651
1804 031	4x185 SM	51.6	0.0991	7104.0	8276
1804 032	4x240 SM	57.2	0.0754	9216.0	10580
YKXSFTynżo 0,6/1 kV					
1804 033	5x1 RE	11.4	18.1	48.0	226
1804 034	5x1,5 RE	12.1	12.1	72.0	265
1804 035	5x2,5 RE	13.1	7.41	120.0	333
1804 036	5x4 RE	14.4	4.61	192.0	432
1804 037	5x6 RE	15.9	3.08	288.0	562
1804 038	5x10 RE	18.1	1.83	480.0	800
1804 039	5x16 RE	20.9	1.15	768.0	1170
1804 040	5x25 RM	26.2	0.727	1200.0	1768
1804 041	5x35 RM	29.7	0.524	1680.0	2356
1804 042	5x50 SM	31.3	0.387	2400.0	3149
1804 043	5x70 SM	36.5	0.268	3360.0	3954
1804 044	5x95 SM	41.4	0.193	4560.0	5465
1804 045	5x120 SM	45.8	0.153	5760.0	6545
1804 046	5x150 SM	51.2	0.124	7200.0	8164
1804 047	5x185 SM	57.0	0.0991	8880.0	10117
1804 048	5x240 SM	63.3	0.0754	11520.0	12957

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKXSFTyżo 0,6/1 kV, YKXSFTy 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, STEEL TAPE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKXSFTyżo 0,6/1 kV** and **YKXSFTy 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:

- RE** - class 1 circular single-wire,
- RM** - class 2 circular multi-wire,
- SM** - class 2 sector shaped multi-wire.

- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSFTyżo 0,6/1 kV** cable,

- insulated conductors laid-up in a cable core,

- PVC cable sheath,

- galvanized steel tape armour,

- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKXSFTyżo-O 0,6/1 kV** and **YKXSFTy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSFTxnżo 0,6/1 kV** and **XnKXSFTxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKXSFTyżo 0,6/1 kV, YKXSFTy 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 90°C	single wire cables	15 x cable diameter
in short-circuit	+ 250°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

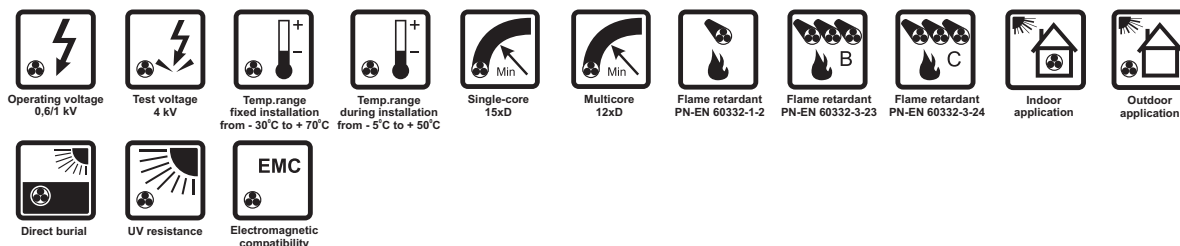
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
YKXSFTy 0,6/1 kV					
1805 002	2x1 RE	9.8	18.1	19.2	164
1805 003	2x1,5 RE	10.3	12.1	28.8	186
1805 001	2x2,5 RE	11.1	7.41	48.0	224
1805 004	2x4 RE	12.0	4.61	76.8	275
1805 005	2x6 RE	13.0	3.08	115.2	338
1805 006	2x10 RE	14.6	1.83	192.0	458
1805 007	2x16 RE	16.6	1.15	307.2	628
1805 008	2x25 RM	20.7	0.727	480.0	969
1805 009	2x35 RM	23.5	0.524	672.0	1273
YKXSFTyżo 0,6/1 kV					
1133 006	3x1 RE	10.2	18.1	28.8	181
1133 007	3x1,5 RE	10.7	12.1	43.2	206
1133 008	3x2,5 RE	11.5	7.41	72.0	250
1133 009	3x4 RE	12.5	4.61	115.2	316
1133 010	3x6 RE	13.6	3.08	172.8	397
1133 011	3x10 RE	15.5	1.83	288.0	557
1133 012	3x16 RE	17.5	1.15	460.8	772
1133 003	3x25 RM	21.9	0.727	720.0	1191
1133 005	3x35 RM	24.9	0.524	1008.0	1581
1133 013	3x50 SM	25.8	0.387	1440.0	2065
1133 014	3x70 SM	29.9	0.268	2016.0	2570
1133 015	3x95 SM	33.6	0.193	2736.0	3496
1133 016	3x120 SM	37.3	0.153	3456.0	4204
1133 017	3x150 SM	41.7	0.124	4320.0	5250
1133 018	3x185 SM	46.5	0.0991	5328.0	6503
1133 019	3x240 SM	51.7	0.0754	6912.0	8325
YKXSFTyżo 0,6/1 kV					
1133 020	4x1 RE	10.8	18.1	38.4	203
1133 021	4x1,5 RE	11.4	12.1	57.6	234
1133 022	4x2,5 RE	12.3	7.41	96.0	290
1133 023	4x4 RE	13.4	4.61	153.6	372

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
1133 024	4x6 RE	14.6	3.08	230.4	472
1133 025	4x10 RE	16.7	1.83	384.0	674
1133 026	4x16 RE	18.9	1.15	614.4	943
1133 027	4x25 RM	24.0	0.727	960.0	1475
1133 028	4x35 RM	27.3	0.524	1344.0	1965
1133 029	4x50 SM	28.2	0.387	1920.0	2576
1133 030	4x70 SM	32.8	0.268	2688.0	3221
1133 031	4x95 SM	37.3	0.193	3648.0	4446
1133 032	4x120 SM	41.5	0.153	4608.0	5359
1133 033	4x150 SM	46.1	0.124	5760.0	6651
1133 034	4x185 SM	51.6	0.0991	7104.0	8276
1133 035	4x240 SM	57.2	0.0754	9216.0	10580
YKXSFTyżo 0,6/1 kV					
1133 036	5x1 RE	11.4	18.1	48.0	226
1133 037	5x1,5 RE	12.1	12.1	72.0	265
1133 038	5x2,5 RE	13.1	7.41	120.0	333
1133 039	5x4 RE	14.4	4.61	192.0	432
1133 040	5x6 RE	15.9	3.08	288.0	562
1133 041	5x10 RE	18.1	1.83	480.0	800
1133 042	5x16 RE	20.9	1.15	768.0	1170
1133 004	5x25 RM	26.2	0.727	1200.0	1768
1133 043	5x35 RM	29.7	0.524	1680.0	2356
1133 044	5x50 SM	31.3	0.387	2400.0	3149
1133 045	5x70 SM	36.5	0.268	3360.0	3954
1133 046	5x95 SM	41.4	0.193	4560.0	5465
1133 047	5x120 SM	45.8	0.153	5760.0	6545
1133 048	5x150 SM	51.2	0.124	7200.0	8164
1133 049	5x185 SM	57.0	0.0991	8880.0	10117
1133 050	5x240 SM	63.3	0.0754	11520.0	12957

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKXSektmyrzo 0,6/1 kV, YKXSektmyrn 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, COPPER TAPE SHIELDED AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKXSektmyrzo 0,6/1 kV** and **YKXSektmyrn 0,6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSektmyrzo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKXSektmyzo-O 0,6/1 kV** and **YKXSektmy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSektmxnzo 0,6/1 kV** and **XnKXSektmxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.



## YKXSektmynżo 0,6/1 kV, YKXSektmyn 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 90°C	single wire cables	15 x cable diameter
in short-circuit	+ 250°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKXSektmyn 0,6/1 kV					
1806 002	1x1,5 RE	7.6	12.1	33.1	99
1806 003	1x2,5 RE	7.9	7.41	44.2	113
1806 004	1x4 RE	8.4	4.61	60.5	135
1806 005	1x6 RE	8.9	3.08	81.5	160
1806 006	1x10 RE	9.7	1.83	123.6	210
1806 007	1x16 RE	10.6	1.15	184.9	277
1806 008	1x25 RM	12.5	0.727	278.8	391
1806 009	1x35 RM	13.5	0.524	378.5	493
1806 010	1x50 RM	14.9	0.387	528.4	633
1806 011	1x70 RM	16.9	0.268	727.7	859
1806 012	1x95 RM	18.6	0.193	974.7	1160
1806 013	1x120 RM	20.5	0.153	1221.4	1380
1806 014	1x150 RM	22.4	0.124	1517.2	1693
1806 015	1x185 RM	24.8	0.0991	1862.0	2086
1806 016	1x240 RM	27.4	0.0754	2399.7	2669
1806 017	1x300 RM	29.4	0.0601	2983.8	3208
1806 018	1x400 RM	33.0	0.0470	3957.4	4342
1806 019	1x500 RM	36.4	0.0366	4929.9	5382
YKXSektmyn 0,6/1 kV					
1806 001	2x1 RE	9.6	18.1	46.0	154
1806 020	2x1,5 RE	10.1	12.1	58.0	175
1806 021	2x2,5 RE	10.9	7.41	80.1	212
1806 022	2x4 RE	11.8	4.61	112.5	262
1806 023	2x6 RE	12.8	3.08	155.1	324
1806 024	2x10 RE	14.4	1.83	238.3	442
1806 025	2x16 RE	16.4	1.15	361.1	610
1806 026	2x25 RM	20.3	0.727	548.5	915
1806 027	2x35 RM	23.1	0.524	751.1	1211
YKXSektmynżo 0,6/1 kV					
1144 005	3x1 RE	10.0	18.1	57.1	169
1144 006	3x1,5 RE	10.5	12.1	74.3	194
1144 007	3x2,5 RE	11.3	7.41	105.7	238
1144 008	3x4 RE	12.3	4.61	153.2	302
1144 009	3x6 RE	13.4	3.08	215.1	382
1144 010	3x10 RE	15.1	1.83	337.1	532
1144 011	3x16 RE	17.3	1.15	518.1	752
1144 012	3x25 RM	21.5	0.727	793.2	1133
1144 013	3x35 RM	24.5	0.524	1092.9	1515
1144 014	3x50 SM	25.4	0.387	1536.3	1990
1144 015	3x70 SM	29.5	0.268	2129.7	2491
1144 016	3x95 SM	33.2	0.193	2865.1	3406

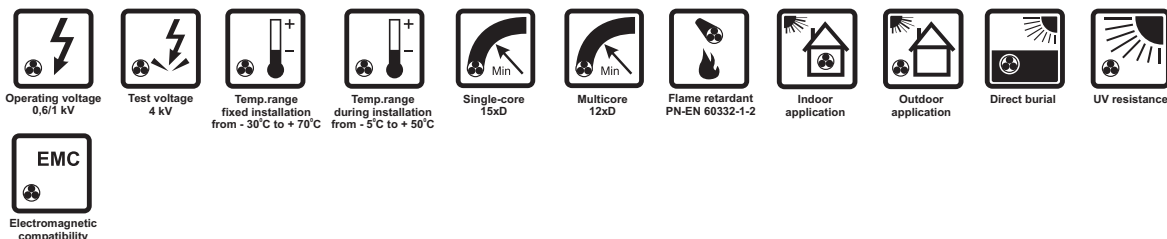
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
1144 017	3x120 SM	36.9	0.153	3600.6	4104
1144 018	3x150 SM	41.3	0.124	4483.4	5137
1144 019	3x185 SM	46.1	0.0991	5511.3	6377
1144 020	3x240 SM	51.3	0.0754	7116.4	8186
YKXSektmynżo 0,6/1 kV					
1144 021	4x1 RE	10.6	18.1	69.7	191
1144 022	4x1,5 RE	11.2	12.1	91.7	222
1144 023	4x2,5 RE	12.1	7.41	133.2	277
1144 024	4x4 RE	13.2	4.61	194.8	356
1144 025	4x6 RE	14.4	3.08	276.7	456
1144 026	4x10 RE	16.5	1.83	438.1	655
1144 001	4x16 RE	18.7	1.15	677.2	922
1144 002	4x25 RM	23.6	0.727	1041.0	1411
1144 003	4x35 RM	26.9	0.524	1437.5	1892
1144 027	4x50 SM	27.7	0.387	2026.8	2478
1144 028	4x70 SM	32.5	0.268	2814.1	3134
1144 029	4x95 SM	36.9	0.193	3792.6	4346
1144 030	4x120 SM	41.1	0.153	4770.9	5246
1144 031	4x150 SM	45.7	0.124	5941.8	6526
1144 032	4x185 SM	51.2	0.0991	7308.0	8136
1144 033	4x240 SM	56.9	0.0754	9442.8	10425
YKXSektmynżo 0,6/1 kV					
1144 034	5x1 RE	11.2	18.1	82.1	215
1144 035	5x1,5 RE	11.9	12.1	108.1	252
1144 036	5x2,5 RE	12.9	7.41	160.1	318
1144 037	5x4 RE	14.2	4.61	237.6	416
1144 038	5x6 RE	15.7	3.08	339.0	544
1144 039	5x10 RE	17.9	1.83	539.6	780
1144 040	5x16 RE	20.5	1.15	837.4	1115
1144 041	5x25 RM	25.8	0.727	1289.9	1698
1144 042	5x35 RM	29.3	0.524	1783.1	2275
1144 043	5x50 SM	30.9	0.387	2519.5	3055
1144 044	5x70 SM	36.2	0.268	3501.0	3856
1144 045	5x95 SM	41.0	0.193	4722.6	5352
1144 046	5x120 SM	45.4	0.153	5940.9	6420
1144 047	5x150 SM	50.8	0.124	7402.2	8025
1144 048	5x185 SM	56.7	0.0991	9106.2	9962
1144 049	5x240 SM	62.9	0.0754	11772.6	12785

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKXSektmyżo 0,6/1 kV, YKXSektmy 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, COPPER TAPE SHIELDED AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKXSektmyżo 0,6/1 kV** and **YKXSektmy 0,6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKXSektmyżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKXSektmyżo-O 0,6/1 kV** and **YKXSektmy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSektmxnżo 0,6/1 kV** and **XnKXSektmxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKXSektmyżo 0,6/1 kV, YKXSektmy 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 90°C	single wire cables	15 x cable diameter
in short-circuit	+ 250°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKXSektmy 0,6/1 kV					
1286 004	1x1,5 RE	7.6	12.1	33.1	99
1286 005	1x2,5 RE	7.9	7.41	44.2	113
1286 006	1x4 RE	8.4	4.61	60.5	135
1286 007	1x6 RE	8.9	3.08	81.5	160
1286 008	1x10 RE	9.7	1.83	123.6	210
1286 009	1x16 RE	10.6	1.15	184.9	277
1286 010	1x25 RM	12.5	0.727	278.8	391
1286 011	1x35 RM	13.5	0.524	378.5	493
1286 012	1x50 RM	14.9	0.387	528.4	633
1286 013	1x70 RM	16.9	0.268	727.7	859
1286 014	1x95 RM	18.6	0.193	974.7	1160
1286 015	1x120 RM	20.5	0.153	1221.4	1380
1286 016	1x150 RM	22.4	0.124	1517.2	1693
1286 017	1x185 RM	24.8	0.0991	1862.0	2086
1286 018	1x240 RM	27.4	0.0754	2399.7	2669
1286 019	1x300 RM	29.4	0.0601	2983.8	3208
1286 020	1x400 RM	33.0	0.0470	3957.4	4342
1286 021	1x500 RM	36.4	0.0366	4929.9	5382
YKXSektmy 0,6/1 kV					
1286 022	2x1 RE	9.6	18.1	46.0	154
1286 002	2x1,5 RE	10.1	12.1	58.0	175
1286 003	2x2,5 RE	10.9	7.41	80.1	212
1286 023	2x4 RE	11.8	4.61	112.5	262
1286 024	2x6 RE	12.8	3.08	155.1	324
1286 025	2x10 RE	14.4	1.83	238.3	442
1286 026	2x16 RE	16.4	1.15	361.1	610
1286 027	2x25 RM	20.3	0.727	548.5	915
1286 028	2x35 RM	23.1	0.524	751.1	1211
YKXSektmyżo 0,6/1 kV					
1807 001	3x1 RE	10.0	18.1	57.1	169
1807 002	3x1,5 RE	10.5	12.1	74.3	194
1807 003	3x2,5 RE	11.3	7.41	105.7	238
1807 004	3x4 RE	12.3	4.61	153.2	302
1807 005	3x6 RE	13.4	3.08	215.1	382
1807 006	3x10 RE	15.1	1.83	337.1	532
1807 007	3x16 RE	17.3	1.15	518.1	752
1807 008	3x25 RM	21.5	0.727	793.2	1133
1807 009	3x35 RM	24.5	0.524	1092.9	1515
1807 010	3x50 SM	25.4	0.387	1536.3	1990
1807 011	3x70 SM	29.5	0.268	2129.7	2491
1807 012	3x95 SM	33.2	0.193	2865.1	3406

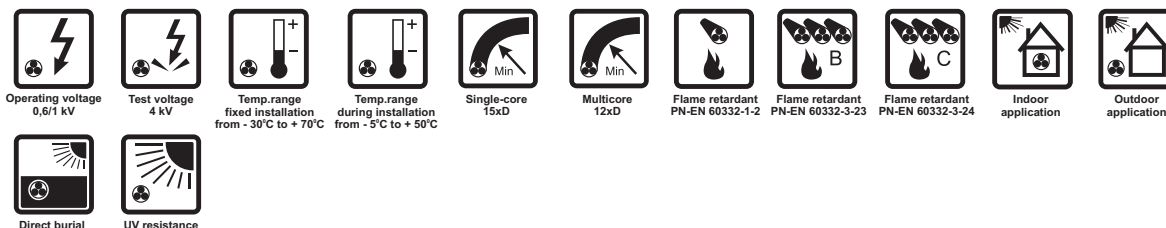
Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
1807 013	3x120 SM	36.9	0.153	3600.6	4104
1807 014	3x150 SM	41.3	0.124	4483.4	5137
1807 015	3x185 SM	46.1	0.0991	5511.3	6377
1807 016	3x240 SM	51.3	0.0754	7116.4	8186
YKXSektmyżo 0,6/1 kV					
1807 017	4x1 RE	10.6	18.1	69.7	191
1807 018	4x1,5 RE	11.2	12.1	91.7	222
1807 019	4x2,5 RE	12.1	7.41	133.2	277
1807 020	4x4 RE	13.2	4.61	194.8	356
1807 021	4x6 RE	14.4	3.08	276.7	456
1807 022	4x10 RE	16.5	1.83	438.1	655
1807 023	4x16 RE	18.7	1.15	677.2	922
1807 024	4x25 RM	23.6	0.727	1041.0	1411
1807 025	4x35 RM	26.9	0.524	1437.5	1892
1807 026	4x50 SM	27.7	0.387	2026.8	2478
1807 027	4x70 SM	32.5	0.268	2814.1	3134
1807 028	4x95 SM	36.9	0.193	3792.6	4346
1807 029	4x120 SM	41.1	0.153	4770.9	5246
1807 030	4x150 SM	45.7	0.124	5941.8	6526
1807 031	4x185 SM	51.2	0.0991	7308.0	8136
1807 032	4x240 SM	56.9	0.0754	9442.8	10425
YKXSektmyżo 0,6/1 kV					
1807 033	5x1 RE	11.2	18.1	82.1	215
1807 034	5x1,5 RE	11.9	12.1	108.1	252
1807 035	5x2,5 RE	12.9	7.41	160.1	318
1807 036	5x4 RE	14.2	4.61	237.6	416
1807 037	5x6 RE	15.7	3.08	339.0	544
1807 038	5x10 RE	17.9	1.83	539.6	780
1807 039	5x16 RE	20.5	1.15	837.4	1115
1807 040	5x25 RM	25.8	0.727	1289.9	1698
1807 041	5x35 RM	29.3	0.524	1783.1	2275
1807 042	5x50 SM	30.9	0.387	2519.5	3055
1807 043	5x70 SM	36.2	0.268	3501.0	3856
1807 044	5x95 SM	41.0	0.193	4722.6	5352
1807 045	5x120 SM	45.4	0.153	5940.9	6420
1807 046	5x150 SM	50.8	0.124	7402.2	8025
1807 047	5x185 SM	56.7	0.0991	9106.2	9962
1807 048	5x240 SM	62.9	0.0754	11772.6	12785

## YnKYžo 0,6/1 kV, YnKY 0,6/1 kV

### PVC INSULATED AND SHEATHED POWER CABLES



## APPLICATIONS

**YnKYžo 0,6/1 kV** and **YnKY 0,6/1 kV** power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YnKYžo 0.6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- black PVC special self-extinguishing PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**YKYžo-O 0,6/1 kV** and **YKY-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSžo 0,6/1 kV** and **XnKXS 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YnKYžo 0,6/1 kV, YnKY 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YnKY 0,6/1 kV					
0680 060	1x1 RE	4.9	18.1	9.6	39
0680 049	1x1,5 RE	5.2	12.1	14.4	46
0680 050	1x2,5 RE	5.5	7.41	24.0	58
0680 051	1x4 RE	6.4	4.61	38.4	81
0680 052	1x6 RE	6.9	3.08	57.6	104
0680 053	1x10 RE	7.7	1.83	96.0	147
0680 054	1x16 RE	8.6	1.15	153.6	207
0680 055	1x25 RM	10.6	0.727	240.0	311
0680 022	1x35 RM	11.6	0.524	336.0	406
0680 035	1x50 RM	13.4	0.387	480.0	551
0680 040	1x70 RM	15.0	0.268	672.0	752
0680 048	1x95 RM	17.3	0.193	912.0	1068
0680 036	1x120 RM	19.0	0.153	1152.0	1271
0680 028	1x150 RM	20.9	0.124	1440.0	1579
0680 013	1x185 RM	23.3	0.0991	1776.0	1967
0680 030	1x240 RM	26.1	0.0754	2304.0	2554
0680 057	1x300 RM	28.5	0.0601	2880.0	3117
0680 058	1x400 RM	31.7	0.0470	3840.0	4213
0680 059	1x500 RM	35.1	0.0366	4800.0	5251
YnKY 0,6/1 kV					
0680 016	2x1 RE	7.9	18.1	19.2	96
0680 027	2x1,5 RE	8.4	12.1	28.8	113
0680 004	2x2,5 RE	9.2	7.41	48.0	144
0680 005	2x4 RE	10.9	4.61	76.8	209
0680 019	2x6 RE	11.9	3.08	115.2	265
0680 006	2x10 RE	14.0	1.83	192.0	399
0680 041	2x16 RE	15.8	1.15	307.2	552
0680 021	2x25 RM	19.7	0.727	480.0	846
0680 056	2x35 RM	21.8	0.524	672.0	1092
YnKYžo 0,6/1 kV					
0649 020	3x1 RE	8.3	18.1	28.8	110
0649 005	3x1,5 RE	8.8	12.1	43.2	132
0649 001	3x2,5 RE	9.6	7.41	72.0	170
0649 009	3x4 RE	11.5	4.61	115.2	252
0649 002	3x6 RE	12.6	3.08	172.8	326
0649 022	3x10 RE	14.8	1.83	288.0	495
0649 023	3x16 RE	16.7	1.15	460.8	697
0649 040	3x25 RM	21.0	0.727	720.0	1073
0649 057	3x35 RM	23.5	0.524	1008.0	1414
0649 058	3x50 SM	24.8	0.387	1440.0	1908
0649 064	3x70 SM	28.2	0.268	2016.0	2352

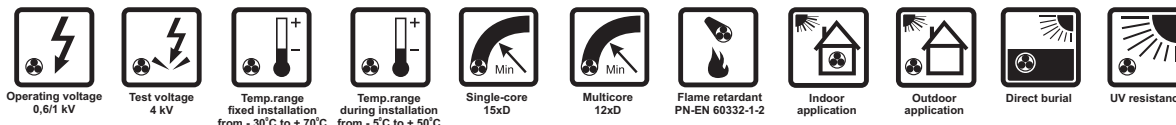
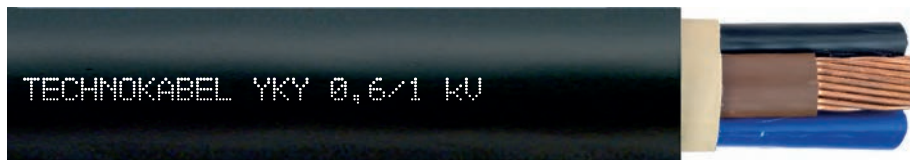
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
0649 059	3x95 SM	33.2	0.193	2736.0	3363
0649 060	3x120 SM	36.2	0.153	3456.0	3997
0649 061	3x150 SM	40.3	0.124	4320.0	4989
0649 062	3x185 SM	45.0	0.0991	5328.0	6220
0649 063	3x240 SM	50.5	0.0754	6912.0	8052
YnKYžo 0,6/1 kV					
0649 034	4x1 RE	8.9	18.1	38.4	129
0649 012	4x1,5 RE	9.5	12.1	57.6	157
0649 007	4x2,5 RE	10.4	7.41	96.0	205
0649 016	4x4 RE	12.5	4.61	153.6	309
0649 013	4x6 RE	13.7	3.08	230.4	403
0649 017	4x10 RE	16.1	1.83	384.0	615
0649 019	4x16 RE	18.3	1.15	614.4	877
0649 021	4x25 RM	23.3	0.727	960.0	1365
0649 018	4x35 RM	26.0	0.524	1344.0	1798
0649 065	4x50 SM	27.6	0.387	1920.0	2437
0649 066	4x70 SM	31.4	0.268	2688.0	3011
0649 042	4x95 SM	36.9	0.193	3648.0	4313
0649 044	4x120 SM	40.2	0.153	4608.0	5120
0649 067	4x150 SM	44.9	0.124	5760.0	6415
0649 068	4x185 SM	50.1	0.0991	7104.0	8001
0649 069	4x240 SM	56.3	0.0754	9216.0	10371
YnKYžo 0,6/1 kV					
0649 070	5x1 RE	9.6	18.1	48.0	153
0649 006	5x1,5 RE	10.3	12.1	72.0	188
0649 008	5x2,5 RE	11.3	7.41	120.0	249
0649 003	5x4 RE	13.6	4.61	192.0	372
0649 010	5x6 RE	15.0	3.08	288.0	489
0649 004	5x10 RE	17.6	1.83	480.0	746
0649 011	5x16 RE	20.1	1.15	768.0	1071
0649 014	5x25 RM	25.8	0.727	1200.0	1679
0649 015	5x35 RM	28.8	0.524	1680.0	2215
0649 043	5x50 SM	30.5	0.387	2400.0	3002
0649 046	5x70 SM	35.3	0.268	3360.0	3772
0649 045	5x95 SM	41.0	0.193	4560.0	5342
0649 049	5x120 SM	44.7	0.153	5760.0	6341
0649 047	5x150 SM	50.0	0.124	7200.0	7948
0649 048	5x185 SM	55.8	0.0991	8880.0	9909
0649 052	5x240 SM	62.6	0.0754	11520.0	12839

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYżo 0,6/1 kV, YKY 0,6/1 kV

### PVC INSULATED AND SHEATHED POWER CABLES



## APPLICATIONS

YKYżo 0,6/1 kV and YKY 0,6/1 kV power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**YKYżo-O 0,6/1 kV** and **YKY-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSżo 0,6/1 kV** and **XnKXS 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKYżo 0,6/1 kV, YKY 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

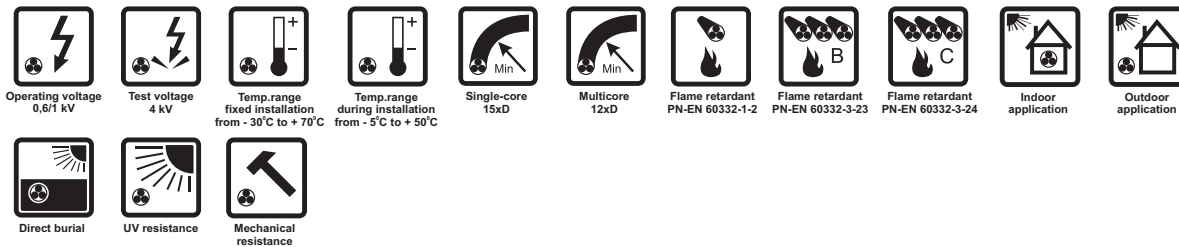
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKY 0,6/1 kV					
0355 056	1x1 RE	4.9	18.1	9.6	39
0355 050	1x1,5 RE	5.2	12.1	14.4	46
0355 057	1x2,5 RE	5.5	7.41	24.0	58
0355 058	1x4 RE	6.4	4.61	38.4	81
0355 051	1x6 RE	6.9	3.08	57.6	104
0355 040	1x10 RE	7.7	1.83	96.0	147
0355 041	1x16 RE	8.6	1.15	153.6	207
0355 030	1x25 RM	10.6	0.727	240.0	311
0355 025	1x35 RM	11.6	0.524	336.0	406
0355 034	1x50 RM	13.4	0.387	480.0	551
0355 035	1x70 RM	15.0	0.268	672.0	752
0355 046	1x95 RM	17.3	0.193	912.0	1068
0355 031	1x120 RM	19.0	0.153	1152.0	1271
0355 033	1x150 RM	20.9	0.124	1440.0	1579
0355 037	1x185 RM	23.3	0.0991	1776.0	1967
0355 032	1x240 RM	26.1	0.0754	2304.0	2554
0355 053	1x300 RM	28.5	0.0601	2880.0	3117
0355 054	1x400 RM	31.7	0.0470	3840.0	4213
0355 055	1x500 RM	35.1	0.0366	4800.0	5251
YKY 0,6/1 kV					
0355 006	2x1 RE	7.9	18.1	19.2	96
0355 008	2x1,5 RE	8.4	12.1	28.8	113
0355 011	2x2,5 RE	9.2	7.41	48.0	144
0355 047	2x4 RE	10.9	4.61	76.8	209
0355 048	2x6 RE	11.9	3.08	115.2	265
0355 012	2x10 RE	14.0	1.83	192.0	399
0355 036	2x16 RE	15.8	1.15	307.2	552
0355 052	2x25 RM	19.7	0.727	480.0	846
0355 049	2x35 RM	21.8	0.524	672.0	1092
YKYżo 0,6/1 kV					
0359 016	3x1 RE	8.3	18.1	28.8	110
0359 001	3x1,5 RE	8.8	12.1	43.2	132
0359 002	3x2,5 RE	9.6	7.41	72.0	170
0359 007	3x4 RE	11.5	4.61	115.2	252
0359 020	3x6 RE	12.6	3.08	172.8	326
0359 021	3x10 RE	14.8	1.83	288.0	495
0359 025	3x16 RE	16.7	1.15	460.8	697
0359 031	3x25 RM	21.0	0.727	720.0	1073
0359 032	3x35 RM	23.5	0.524	1008.0	1414
0359 037	3x50 SM	24.8	0.387	1440.0	1908
0359 038	3x70 SM	28.2	0.268	2016.0	2352

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
0359 039	3x95 SM	33.2	0.193	2736.0	3363
0359 040	3x120 SM	36.2	0.153	3456.0	3997
0359 041	3x150 SM	40.3	0.124	4320.0	4989
0359 042	3x185 SM	45.0	0.0991	5328.0	6220
0359 043	3x240 SM	50.5	0.0754	6912.0	8052
YKYżo 0,6/1 kV					
0359 028	4x1 RE	8.9	18.1	38.4	129
0359 004	4x1,5 RE	9.5	12.1	57.6	157
0359 023	4x2,5 RE	10.4	7.41	96.0	205
0359 014	4x4 RE	12.5	4.61	153.6	309
0359 013	4x6 RE	13.7	3.08	230.4	403
0359 024	4x10 RE	16.1	1.83	384.0	615
0359 012	4x16 RE	18.3	1.15	614.4	877
0359 018	4x25 RM	23.3	0.727	960.0	1365
0359 026	4x35 RM	26.0	0.524	1344.0	1798
0359 044	4x50 SM	27.6	0.387	1920.0	2437
0359 045	4x70 SM	31.4	0.268	2688.0	3011
0359 035	4x95 SM	36.9	0.193	3648.0	4313
0359 046	4x120 SM	40.2	0.153	4608.0	5120
0359 047	4x150 SM	44.9	0.124	5760.0	6415
0359 048	4x185 SM	50.1	0.0991	7104.0	8001
0359 049	4x240 SM	56.3	0.0754	9216.0	10371
YKYżo 0,6/1 kV					
0359 003	5x1 RE	9.6	18.1	48.0	153
0359 006	5x1,5 RE	10.3	12.1	72.0	188
0359 005	5x2,5 RE	11.3	7.41	120.0	249
0359 008	5x4 RE	13.6	4.61	192.0	372
0359 011	5x6 RE	15.0	3.08	288.0	489
0359 015	5x10 RE	17.6	1.83	480.0	746
0359 010	5x16 RE	20.1	1.15	768.0	1071
0359 009	5x25 RM	25.8	0.727	1200.0	1679
0359 033	5x35 RM	28.8	0.524	1680.0	2215
0359 050	5x50 SM	30.5	0.387	2400.0	3002
0359 051	5x70 SM	35.3	0.268	3360.0	3772
0359 052	5x95 SM	41.0	0.193	4560.0	5342
0359 053	5x120 SM	44.7	0.153	5760.0	6341
0359 054	5x150 SM	50.0	0.124	7200.0	7948
0359 055	5x185 SM	55.8	0.0991	8880.0	9909
0359 056	5x240 SM	62.6	0.0754	11520.0	12839

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYFoyrzo 0,6/1 kV, YKYFoyrn 0,6/1 kV

### PVC INSULATED AND SHEATHED STEEL WIRE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKYFoyrzo 0,6/1 kV** and **YKYFoyrn 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

The cable covering is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYFoyrzo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKYFoyzo-O 0,6/1 kV** and **YKYFoy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSFoxnzo 0,6/1 kV** and **XnKXSFoxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.



## YKYFoyńzo 0,6/1 kV, YKYFoyń 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit in work conditions	+ 70°C	Minimum bending radius	15 x cable diameter
in short-circuit	+ 160°C	single wire cables	12 x cable diameter
		multi wire cables	
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
YKYFoyń 0,6/1 kV					
1275 003	2x1 RE	11.2	18.1	19.2	280
1275 004	2x1,5 RE	11.7	12.1	28.8	310
1275 005	2x2,5 RE	12.5	7.41	48.0	356
1275 006	2x4 RE	14.2	4.61	76.8	460
1275 007	2x6 RE	15.2	3.08	115.2	542
1275 008	2x10 RE	17.0	1.83	192.0	694
1275 009	2x16 RE	18.8	1.15	307.2	885
1275 010	2x25 RM	23.8	0.727	480.0	1442
1275 011	2x35 RM	26.4	0.524	672.0	1791
YKYFoyńzo 0,6/1 kV					
1276 024	3x1 RE	11.6	18.1	28.8	301
1276 001	3x1,5 RE	12.1	12.1	43.2	335
1276 002	3x2,5 RE	12.9	7.41	72.0	393
1276 004	3x4 RE	14.8	4.61	115.2	515
1276 025	3x6 RE	16.1	3.08	172.8	624
1276 011	3x10 RE	17.8	1.83	288.0	808
1276 026	3x16 RE	20.6	1.15	460.8	1194
1276 027	3x25 RM	25.1	0.727	720.0	1705
1276 028	3x35 RM	28.1	0.524	1008.0	2156
1276 029	3x50 SM	29.6	0.387	1440.0	2927
1276 030	3x70 SM	33.4	0.268	2016.0	3423
1276 031	3x95 SM	38.2	0.193	2736.0	4595
1276 032	3x120 SM	42.1	0.153	3456.0	5654
1276 033	3x150 SM	46.6	0.124	4320.0	6880
1276 034	3x185 SM	52.1	0.0991	5328.0	8797
1276 035	3x240 SM	58.0	0.0754	6912.0	11033
YKYFoyńzo 0,6/1 kV					
1276 036	4x1 RE	12.2	18.1	38.4	333
1276 037	4x1,5 RE	12.8	12.1	57.6	373
1276 003	4x2,5 RE	13.7	7.41	96.0	442
1276 038	4x4 RE	16.0	4.61	153.6	605

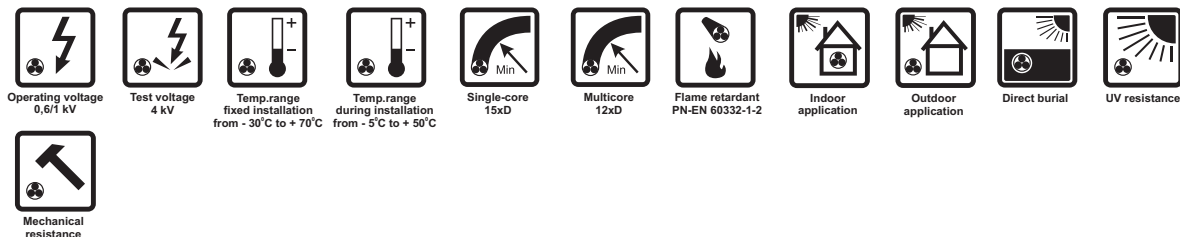
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
1276 009	4x6 RE	17.2	3.08	230.4	727
1276 012	4x10 RE	19.3	1.83	384.0	962
1276 014	4x16 RE	22.2	1.15	614.4	1412
1276 015	4x25 RM	27.4	0.727	960.0	2062
1276 039	4x35 RM	30.6	0.524	1344.0	2620
1276 040	4x50 SM	32.8	0.387	1920.0	3609
1276 041	4x70 SM	36.5	0.268	2688.0	4208
1276 042	4x95 SM	42.8	0.193	3648.0	6000
1276 016	4x120 SM	46.5	0.153	4608.0	7015
1276 018	4x150 SM	52.0	0.124	5760.0	8998
1276 020	4x185 SM	57.6	0.0991	7104.0	10949
1276 022	4x240 SM	63.8	0.0754	9216.0	13677
YKYFoyńzo 0,6/1 kV					
1276 043	5x1 RE	12.9	18.1	48.0	375
1276 044	5x1,5 RE	13.6	12.1	72.0	424
1276 008	5x2,5 RE	14.6	7.41	120.0	505
1276 045	5x4 RE	17.1	4.61	192.0	689
1276 010	5x6 RE	18.5	3.08	288.0	840
1276 013	5x10 RE	21.5	1.83	480.0	1267
1276 007	5x16 RE	24.2	1.15	768.0	1678
1276 005	5x25 RM	29.7	0.727	1200.0	2426
1276 006	5x35 RM	33.8	0.524	1680.0	3280
1276 046	5x50 SM	35.7	0.387	2400.0	4294
1276 047	5x70 SM	41.0	0.268	3360.0	5382
1276 048	5x95 SM	47.1	0.193	4560.0	7245
1276 017	5x120 SM	51.8	0.153	5760.0	8924
1276 019	5x150 SM	57.4	0.124	7200.0	10895
1276 021	5x185 SM	63.2	0.0991	8880.0	13175
1276 023	5x240 SM	68.1	0.0754	11520.0	16531

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYFoyżo 0,6/1 kV, YKYFoy 0,6/1 kV

### PVC INSULATED AND SHEATHED STEEL WIRE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKYFoyżo 0,6/1 kV** and **YKYFoy 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYFoyżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKYFoyżo-O 0,6/1 kV** and **YKYFoy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSfoxnżo 0,6/1 kV** and **XnKXSfoxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKYFoyžo 0,6/1 kV, YKYFoy 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKYFoy 0,6/1 kV					
1203 007	2x1 RE	11.2	18.1	19.2	280
1203 005	2x1,5 RE	11.7	12.1	28.8	310
1203 008	2x2,5 RE	12.5	7.41	48.0	356
1203 006	2x4 RE	14.2	4.61	76.8	460
1203 004	2x6 RE	15.2	3.08	115.2	542
1203 003	2x10 RE	17.0	1.83	192.0	694
1203 009	2x16 RE	18.8	1.15	307.2	885
1203 010	2x25 RM	23.8	0.727	480.0	1442
1203 011	2x35 RM	26.4	0.524	672.0	1791
YKYFoyžo 0,6/1 kV					
1158 022	3x1 RE	11.6	18.1	28.8	301
1158 023	3x1,5 RE	12.1	12.1	43.2	335
1158 004	3x2,5 RE	12.9	7.41	72.0	393
1158 006	3x4 RE	14.8	4.61	115.2	515
1158 001	3x6 RE	16.1	3.08	172.8	624
1158 002	3x10 RE	17.8	1.83	288.0	808
1158 016	3x16 RE	20.6	1.15	460.8	1194
1158 019	3x25 RM	25.1	0.727	720.0	1705
1158 024	3x35 RM	28.1	0.524	1008.0	2156
1158 025	3x50 SM	29.6	0.387	1440.0	2927
1158 026	3x70 SM	33.4	0.268	2016.0	3423
1158 027	3x95 SM	38.2	0.193	2736.0	4595
1158 028	3x120 SM	42.1	0.153	3456.0	5654
1158 029	3x150 SM	46.6	0.124	4320.0	6880
1158 030	3x185 SM	52.1	0.0991	5328.0	8797
1158 031	3x240 SM	58.0	0.0754	6912.0	11033
YKYFoyžo 0,6/1 kV					
1158 032	4x1 RE	12.2	18.1	38.4	333
1158 033	4x1,5 RE	12.8	12.1	57.6	373
1158 012	4x2,5 RE	13.7	7.41	96.0	442
1158 014	4x4 RE	16.0	4.61	153.6	605

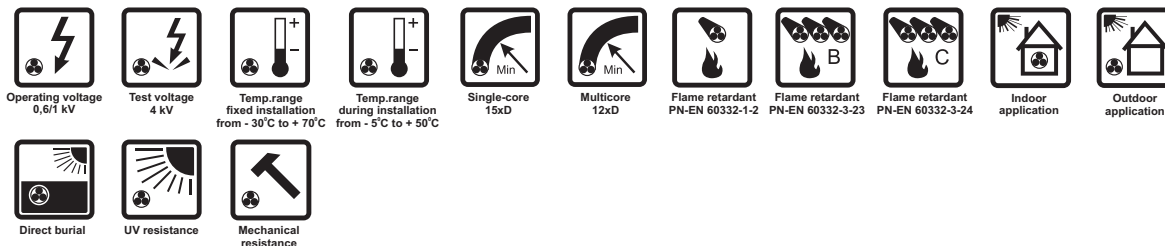
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
1158 009	4x6 RE	17.2	3.08	230.4	727
1158 015	4x10 RE	19.3	1.83	384.0	962
1158 017	4x16 RE	22.2	1.15	614.4	1412
1158 034	4x25 RM	27.4	0.727	960.0	2062
1158 011	4x35 RM	30.6	0.524	1344.0	2620
1158 035	4x50 SM	32.8	0.387	1920.0	3609
1158 036	4x70 SM	36.5	0.268	2688.0	4208
1158 037	4x95 SM	42.8	0.193	3648.0	6000
1158 038	4x120 SM	46.5	0.153	4608.0	7015
1158 039	4x150 SM	52.0	0.124	5760.0	8998
1158 040	4x185 SM	57.6	0.0991	7104.0	10949
1158 041	4x240 SM	63.8	0.0754	9216.0	13677
YKYFoyžo 0,6/1 kV					
1158 042	5x1 RE	12.9	18.1	48.0	375
1158 043	5x1,5 RE	13.6	12.1	72.0	424
1158 013	5x2,5 RE	14.6	7.41	120.0	505
1158 044	5x4 RE	17.1	4.61	192.0	689
1158 003	5x6 RE	18.5	3.08	288.0	840
1158 007	5x10 RE	21.5	1.83	480.0	1267
1158 018	5x16 RE	24.2	1.15	768.0	1678
1158 020	5x25 RM	29.7	0.727	1200.0	2426
1158 021	5x35 RM	33.8	0.524	1680.0	3280
1158 045	5x50 SM	35.7	0.387	2400.0	4294
1158 046	5x70 SM	41.0	0.268	3360.0	5382
1158 047	5x95 SM	47.1	0.193	4560.0	7245
1158 048	5x120 SM	51.8	0.153	5760.0	8924
1158 049	5x150 SM	57.4	0.124	7200.0	10895
1158 050	5x185 SM	63.2	0.0991	8880.0	13175
1158 051	5x240 SM	68.1	0.0754	11520.0	16531

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYFtyrzo 0,6/1 kV, YKYFtytn 0,6/1 kV

### PVC INSULATED AND SHEATHED STEEL TAPE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKYFtyrzo 0,6/1 kV** and **YKYFtytn 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

The cable covering is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYFtyrzo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKYFtyzo-O 0,6/1 kV** and **YKYFty-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSftxnzo 0,6/1 kV** and **XnKXSftxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKYFtynżo 0,6/1 kV, YKYFtyn 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

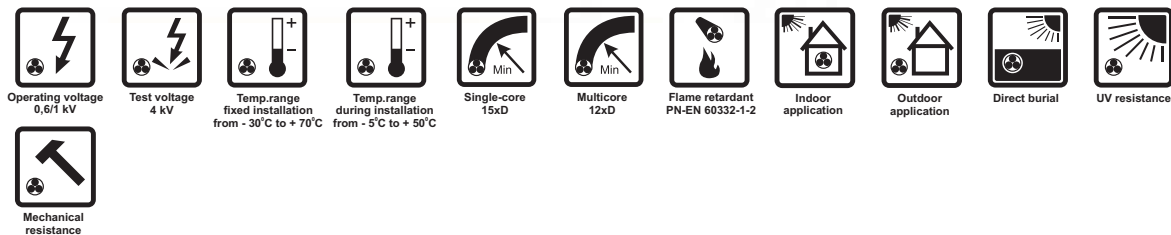
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKYFtyn 0,6/1 kV					
1056 014	2x1 RE	10.0	18.1	19.2	174
1056 015	2x1,5 RE	10.5	12.1	28.8	196
1056 016	2x2,5 RE	11.3	7.41	48.0	236
1056 012	2x4 RE	13.0	4.61	76.8	318
1056 017	2x6 RE	14.0	3.08	115.2	385
1056 018	2x10 RE	15.8	1.83	192.0	519
1056 019	2x16 RE	17.6	1.15	307.2	688
1056 020	2x25 RM	21.9	0.727	480.0	1061
1056 021	2x35 RM	24.7	0.524	672.0	1376
YKYFtynżo 0,6/1 kV					
1308 025	3x1 RE	10.4	18.1	28.8	192
1308 006	3x1,5 RE	10.9	12.1	43.2	219
1308 004	3x2,5 RE	11.7	7.41	72.0	265
1308 009	3x4 RE	13.6	4.61	115.2	366
1308 026	3x6 RE	14.7	3.08	172.8	452
1308 027	3x10 RE	16.6	1.83	288.0	622
1308 028	3x16 RE	18.5	1.15	460.8	840
1308 029	3x25 RM	23.4	0.727	720.0	1312
1308 030	3x35 RM	26.2	0.524	1008.0	1705
1308 031	3x50 SM	27.3	0.387	1440.0	2241
1308 032	3x70 SM	31.1	0.268	2016.0	2726
1308 033	3x95 SM	36.1	0.193	2736.0	3802
1308 034	3x120 SM	39.1	0.153	3456.0	4473
1308 035	3x150 SM	43.5	0.124	4320.0	5567
1308 036	3x185 SM	48.0	0.0991	5328.0	6836
1308 037	3x240 SM	53.9	0.0754	6912.0	8806
YKYFtynżo 0,6/1 kV					
1308 038	4x1 RE	11.0	18.1	38.4	217
1308 039	4x1,5 RE	11.6	12.1	57.6	250
1308 013	4x2,5 RE	12.5	7.41	96.0	308
1308 007	4x4 RE	14.6	4.61	153.6	433

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
1308 015	4x6 RE	16.0	308	230.4	548
1308 016	4x10 RE	17.9	1.83	384.0	752
1308 017	4x16 RE	20.5	1.15	614.4	1074
1308 008	4x25 RM	25.5	0.727	960.0	1617
1308 040	4x35 RM	28.7	0.524	1344.0	2121
1308 018	4x50 SM	30.5	0.387	1920.0	2846
1308 019	4x70 SM	34.2	0.268	2688.0	3428
1308 020	4x95 SM	39.7	0.193	3648.0	4802
1308 021	4x120 SM	43.4	0.153	4608.0	5702
1308 022	4x150 SM	47.9	0.124	5760.0	7037
1308 023	4x185 SM	53.5	0.0991	7104.0	8756
1308 024	4x240 SM	59.7	0.0754	9216.0	11217
YKYFtynżo 0,6/1 kV					
1308 041	5x1 RE	11.7	18.1	48.0	247
1308 042	5x1,5 RE	12.4	12.1	72.0	289
1308 011	5x2,5 RE	13.4	7.41	120.0	360
1308 010	5x4 RE	15.9	4.61	192.0	515
1308 014	5x6 RE	17.3	3.08	288.0	647
1308 002	5x10 RE	19.6	1.83	480.0	906
1308 001	5x16 RE	22.3	1.15	768.0	1288
1308 003	5x25 RM	28.0	0.727	1200.0	1957
1308 043	5x35 RM	31.5	0.524	1680.0	2572
1308 044	5x50 SM	33.4	0.387	2400.0	3454
1308 045	5x70 SM	38.0	0.268	3360.0	4222
1308 046	5x95 SM	44.1	0.193	4560.0	5913
1308 047	5x120 SM	47.7	0.153	5760.0	6962
1308 048	5x150 SM	53.4	0.124	7200.0	8701
1308 049	5x185 SM	59.0	0.0991	8880.0	10715
1308 050	5x240 SM	62.8	0.0754	11520.0	13176

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYFtyżo 0,6/1 kV, YKYFty 0,6/1 kV

### PVC INSULATED AND SHEATHED STEEL TAPE ARMoured AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKYFtyżo 0,6/1 kV** and **YKYFty 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYFtyżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKYFtyżo-O 0,6/1 kV** and **YKYFty-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSftxnżo 0,6/1 kV** and **XnKXSftxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKYFtyżo 0,6/1 kV, YKYFty 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor crosssection	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKYFty 0,6/1 kV					
0952 018	2x1 RE	10.0	18.1	19.2	174
0952 020	2x1,5 RE	10.5	12.1	28.8	196
0952 008	2x2,5 RE	11.3	7.41	48.0	236
0952 021	2x4 RE	13.0	4.61	76.8	318
0952 032	2x6 RE	14.0	3.08	115.2	385
0952 024	2x10 RE	15.8	1.83	192.0	519
0952 022	2x16 RE	17.6	1.15	307.2	688
0952 030	2x25 RM	21.9	0.727	480.0	1061
0952 042	2x35 RM	24.7	0.524	672.0	1376
YKYFtyżo 0,6/1 kV					
0954 029	3x1 RE	10.4	18.1	28.8	192
0954 015	3x1,5 RE	10.9	12.1	43.2	219
0954 023	3x2,5 RE	11.7	7.41	72.0	265
0954 022	3x4 RE	13.6	4.61	115.2	366
0954 028	3x6 RE	14.7	3.08	172.8	452
0954 033	3x10 RE	16.6	1.83	288.0	622
0954 027	3x16 RE	18.5	1.15	460.8	840
0954 026	3x25 RM	23.4	0.727	720.0	1312
0954 034	3x35 RM	26.2	0.524	1008.0	1705
0954 036	3x50 SM	27.3	0.387	1440.0	2241
0954 037	3x70 SM	31.1	0.268	2016.0	2726
0954 038	3x95 SM	36.1	0.193	2736.0	3802
0954 039	3x120 SM	39.1	0.153	3456.0	4473
0954 040	3x150 SM	43.5	0.124	4320.0	5567
0954 041	3x185 SM	48.0	0.0991	5328.0	6836
0954 042	3x240 SM	53.9	0.0754	6912.0	8806
YKYFtyżo 0,6/1 kV					
0954 031	4x1 RE	11.0	18.1	38.4	217
0954 013	4x1,5 RE	11.6	12.1	57.6	250
0954 008	4x2,5 RE	12.5	7.41	96.0	308
0954 004	4x4 RE	14.6	4.61	153.6	433

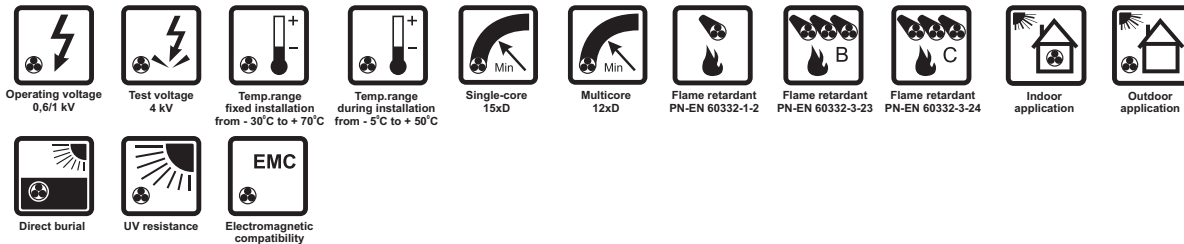
Product No.	Number of conductors x conductor crosssection	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
0954 011	4x6 RE	16.0	3.08	230.4	548
0954 014	4x10 RE	17.9	1.83	384.0	752
0954 020	4x16 RE	20.5	1.15	614.4	1074
0954 017	4x25 RM	25.5	0.727	960.0	1617
0954 009	4x35 RM	28.7	0.524	1344.0	2121
0954 043	4x50 SM	30.5	0.387	1920.0	2846
0954 044	4x70 SM	34.2	0.268	2688.0	3428
0954 032	4x95 SM	39.7	0.193	3648.0	4802
0954 045	4x120 SM	43.4	0.153	4608.0	5702
0954 046	4x150 SM	47.9	0.124	5760.0	7037
0954 047	4x185 SM	53.5	0.0991	7104.0	8756
0954 048	4x240 SM	59.7	0.0754	9216.0	11217
YKYFtyżo 0,6/1 kV					
0954 030	5x1 RE	11.7	18.1	48.0	247
0954 002	5x1,5 RE	12.4	12.1	72.0	289
0954 001	5x2,5 RE	13.4	7.41	120.0	360
0954 003	5x4 RE	15.9	4.61	192.0	515
0954 016	5x6 RE	17.3	3.08	288.0	647
0954 025	5x10 RE	19.6	1.83	480.0	906
0954 005	5x16 RE	22.3	1.15	768.0	1288
0954 018	5x25 RM	28.0	0.727	1200.0	1957
0954 021	5x35 RM	31.5	0.524	1680.0	2572
0954 049	5x50 SM	33.4	0.387	2400.0	3454
0954 050	5x70 SM	38.0	0.268	3360.0	4222
0954 051	5x95 SM	44.1	0.193	4560.0	5913
0954 052	5x120 SM	47.7	0.153	5760.0	6962
0954 053	5x150 SM	53.4	0.124	7200.0	8701
0954 054	5x185 SM	59.0	0.0991	8880.0	10715
0954 055	5x240 SM	62.8	0.0754	11520.0	13176

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYektmyńżo 0,6/1 kV, YKYektmyń 0,6/1 kV

### PVC INSULATED AND SHEATHED COPPER TAPE SHIELDED AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKYektmyńżo 0,6/1 kV** and **YKYektmyń 0,6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

The cable covering is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYektmyńżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKYektmyńżo-O 0,6/1 kV** and **YKYektmyń-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSektmyńżo 0,6/1 kV** and **XnKXSektmyń 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.



## YKYektmyńżo 0,6/1 kV, YKYektmyń 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
YKYektmyń 0,6/1 kV					
0945 004	1x1 RE	7.4	18.1	27.6	94
0945 005	1x1,5 RE	7.7	12.1	33.5	104
0945 006	1x2,5 RE	8.0	7.41	44.3	118
0945 007	1x4 RE	8.9	4.61	62.3	150
0945 008	1x6 RE	9.4	3.08	83.5	177
0945 009	1x10 RE	10.2	1.83	125.4	229
0945 010	1x16 RE	11.1	1.15	186.2	297
0945 011	1x25 RM	13.1	0.727	281.0	421
0945 012	1x35 RM	14.1	0.524	381.0	526
0945 013	1x50 RM	15.9	0.387	531.3	688
0945 014	1x70 RM	17.5	0.268	730.0	905
0945 015	1x95 RM	19.8	0.193	978.4	1242
0945 016	1x120 RM	21.3	0.153	1224.6	1451
0945 017	1x150 RM	23.4	0.124	1520.1	1789
0945 018	1x185 RM	25.6	0.0991	1865.1	2186
0945 019	1x240 RM	28.4	0.0754	2403.8	2799
0945 020	1x300 RM	30.8	0.0601	2988.3	3383
0945 021	1x400 RM	34.4	0.0470	3962.9	4548
0945 022	1x500 RM	37.6	0.0366	4935.6	5602
YKYektmyń 0,6/1 kV					
0945 023	2x1 RE	9.8	18.1	47.0	164
0945 024	2x1,5 RE	10.3	12.1	58.6	185
0945 025	2x2,5 RE	11.1	7.41	80.6	224
0945 026	2x4 RE	12.8	4.61	116.7	304
0945 027	2x6 RE	13.8	3.08	159.2	370
0945 028	2x10 RE	15.6	1.83	242.4	501
0945 029	2x16 RE	17.4	1.15	364.9	668
0945 030	2x25 RM	21.5	0.727	553.2	1003
0945 031	2x35 RM	24.3	0.524	755.8	1310
YKYektmyńżo 0,6/1 kV					
1156 002	3x1 RE	10.2	18.1	58.2	181
1156 003	3x1,5 RE	10.7	12.1	74.8	207
1156 001	3x2,5 RE	11.5	7.41	106.6	253
1156 004	3x4 RE	13.4	4.61	157.5	351
1156 005	3x6 RE	14.5	3.08	219.5	436
1156 006	3x10 RE	16.4	1.83	341.9	603
1156 007	3x16 RE	18.3	1.15	522.2	819
1156 008	3x25 RM	23.0	0.727	798.6	1250
1156 009	3x35 RM	25.8	0.524	1097.9	1635
1156 010	3x50 SM	27.0	0.387	1543.1	2160
1156 011	3x70 SM	30.7	0.268	2135.1	2643

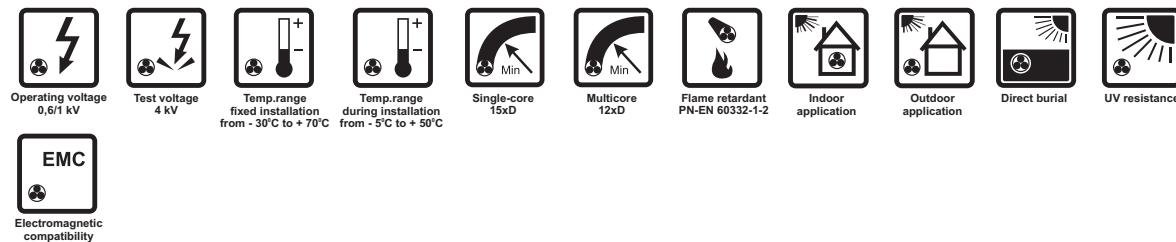
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
1156 012	3x95 SM	35.7	0.193	2875.6	3705
1156 013	3x120 SM	38.7	0.153	3607.6	4369
1156 014	3x150 SM	43.1	0.124	4491.2	5450
1156 015	3x185 SM	47.7	0.0991	5516.9	6707
1156 016	3x240 SM	53.5	0.0754	7126.8	8658
YKYektmyńżo 0,6/1 kV					
1156 017	4x1 RE	10.8	18.1	70.2	205
1156 018	4x1,5 RE	11.4	12.1	91.8	238
1156 019	4x2,5 RE	12.3	7.41	134.0	294
1156 020	4x4 RE	14.4	4.61	199.9	416
1156 021	4x6 RE	15.8	3.08	281.6	530
1156 022	4x10 RE	17.7	1.83	442.8	731
1156 023	4x16 RE	20.1	1.15	682.0	1021
1156 024	4x25 RM	25.1	0.727	1047.4	1549
1156 025	4x35 RM	28.3	0.524	1443.1	2043
1156 026	4x50 SM	30.1	0.387	2036.6	2756
1156 027	4x70 SM	33.9	0.268	2820.1	3337
1156 028	4x95 SM	39.4	0.193	3803.2	4695
1156 029	4x120 SM	43.1	0.153	4778.9	5585
1156 030	4x150 SM	47.6	0.124	5948.5	6908
1156 031	4x185 SM	53.2	0.0991	7317.4	8609
1156 032	4x240 SM	59.3	0.0754	9455.1	11053
YKYektmyńżo 0,6/1 kV					
1156 033	5x1 RE	11.5	18.1	82.6	235
1156 034	5x1,5 RE	12.2	12.1	109.4	276
1156 035	5x2,5 RE	13.2	7.41	161.2	345
1156 036	5x4 RE	15.7	4.61	243.0	497
1156 037	5x6 RE	17.1	3.08	344.4	627
1156 038	5x10 RE	19.4	1.83	545.2	884
1156 039	5x16 RE	21.9	1.15	843.1	1229
1156 040	5x25 RM	27.6	0.727	1296.3	1882
1156 041	5x35 RM	31.1	0.524	1789.6	2486
1156 042	5x50 SM	33.0	0.387	2528.6	3355
1156 043	5x70 SM	37.6	0.268	3508.5	4119
1156 044	5x95 SM	43.7	0.193	4733.1	5793
1156 045	5x120 SM	47.4	0.153	5947.8	6833
1156 046	5x150 SM	53.0	0.124	7412.6	8555
1156 047	5x185 SM	58.6	0.0991	9113.7	10554
1156 048	5x240 SM	62.3	0.0754	11770.8	12974

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYektmyżo 0,6/1 kV, YKYektmy 0,6/1 kV

### PVC INSULATED AND SHEATHED COPPER TAPE SHIELDED AND PVC OVERSHEATHED POWER CABLES



## APPLICATIONS

**YKYektmyżo 0,6/1 kV** and **YKYektmy 0,6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYektmyżo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKYektmyżo-O 0,6/1 kV** and **YKYektmy-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSektmxnżo 0,6/1 kV** and **XnKXSektmxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKYektmyžo 0,6/1 kV, YKYektmy 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKYektmy 0,6/1 kV					
0619 029	1x1 RE	7.4	18.1	27.6	94
0619 030	1x1,5 RE	7.7	12.1	33.5	104
0619 031	1x2,5 RE	8.0	7.41	44.3	118
0619 032	1x4 RE	8.9	4.61	62.3	150
0619 033	1x6 RE	9.4	3.08	83.5	177
0619 034	1x10 RE	10.2	1.83	125.4	229
0619 035	1x16 RE	11.1	1.15	186.2	297
0619 036	1x25 RM	13.1	0.727	281.0	421
0619 037	1x35 RM	14.1	0.524	381.0	526
0619 026	1x50 RM	15.9	0.387	531.3	688
0619 038	1x70 RM	17.5	0.268	730.0	905
0619 039	1x95 RM	19.8	0.193	978.4	1242
0619 027	1x120 RM	21.3	0.153	1224.6	1451
0619 010	1x150 RM	23.4	0.124	1520.1	1789
0619 040	1x185 RM	25.6	0.0991	1865.1	2186
0619 028	1x240 RM	28.4	0.0754	2403.8	2799
0619 011	1x300 RM	30.8	0.0601	2988.3	3383
0619 041	1x400 RM	34.4	0.0470	3962.9	4548
0619 042	1x500 RM	37.6	0.0366	4935.6	5602
YKYektmy 0,6/1 kV					
0619 003	2x1 RE	9.8	18.1	47.0	164
0619 005	2x1,5 RE	10.3	12.1	58.6	185
0619 004	2x2,5 RE	11.1	7.41	80.6	224
0619 013	2x4 RE	12.8	4.61	116.7	304
0619 043	2x6 RE	13.8	3.08	159.2	370
0619 044	2x10 RE	15.6	1.83	242.4	501
0619 025	2x16 RE	17.4	1.15	364.9	668
0619 045	2x25 RM	21.5	0.727	553.2	1003
0619 046	2x35 RM	24.3	0.524	755.8	1310
YKYektmyžo 0,6/1 kV					
0848 014	3x1 RE	10.2	18.1	58.2	181
0848 002	3x1,5 RE	10.7	12.1	74.8	207
0848 008	3x2,5 RE	11.5	7.41	106.6	253
0848 015	3x4 RE	13.4	4.61	157.5	351
0848 016	3x6 RE	14.5	3.08	219.5	436
0848 017	3x10 RE	16.4	1.83	341.9	603
0848 018	3x16 RE	18.3	1.15	522.2	819
0848 019	3x25 RM	23.0	0.727	798.6	1250
0848 020	3x35 RM	25.8	0.524	1097.9	1635
0848 021	3x50 SM	27.0	0.387	1543.1	2160
0848 022	3x70 SM	30.7	0.268	2135.1	2643

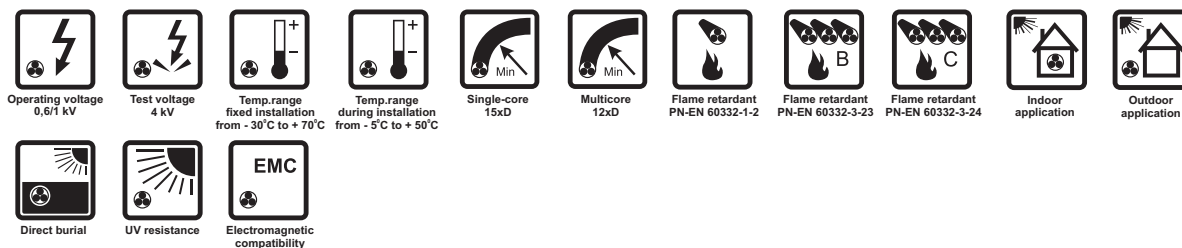
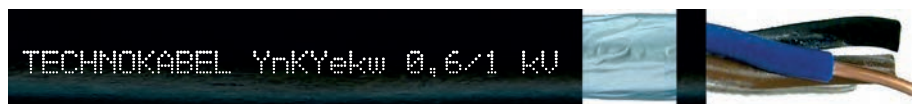
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
0848 023	3x95 SM	35.7	0.193	2875.6	3705
0848 024	3x120 SM	38.7	0.153	3607.6	4369
0848 025	3x150 SM	43.1	0.124	4491.2	5450
0848 026	3x185 SM	47.7	0.0991	5516.9	6707
0848 027	3x240 SM	53.5	0.0754	7126.8	8658
YKYektmyžo 0,6/1 kV					
0848 028	4x1 RE	10.8	18.1	70.2	205
0848 001	4x1,5 RE	11.4	12.1	91.8	238
0848 003	4x2,5 RE	12.3	7.41	134.0	294
0848 006	4x4 RE	14.4	4.61	199.9	416
0848 007	4x6 RE	15.8	3.08	281.6	530
0848 029	4x10 RE	17.7	1.83	442.8	731
0848 030	4x16 RE	20.1	1.15	682.0	1021
0848 031	4x25 RM	25.1	0.727	1047.4	1549
0848 011	4x35 RM	28.3	0.524	1443.1	2043
0848 032	4x50 SM	30.1	0.387	2036.6	2756
0848 033	4x70 SM	33.9	0.268	2820.1	3337
0848 034	4x95 SM	39.4	0.193	3803.2	4695
0848 035	4x120 SM	43.1	0.153	4778.9	5585
0848 036	4x150 SM	47.6	0.124	5948.5	6908
0848 037	4x185 SM	53.2	0.0991	7317.4	8609
0848 038	4x240 SM	59.3	0.0754	9455.1	11053
YKYektmyžo 0,6/1 kV					
0848 009	5x1 RE	11.5	18.1	82.6	235
0848 004	5x1,5 RE	12.2	12.1	109.4	276
0848 005	5x2,5 RE	13.2	7.41	161.2	345
0848 010	5x4 RE	15.7	4.61	243.0	497
0848 039	5x6 RE	17.1	3.08	344.4	627
0848 012	5x10 RE	19.4	1.83	545.2	884
0848 040	5x16 RE	21.9	1.15	843.1	1229
0848 013	5x25 RM	27.6	0.727	1296.3	1882
0848 041	5x35 RM	31.1	0.524	1789.6	2486
0848 042	5x50 SM	33.0	0.387	2528.6	3355
0848 043	5x70 SM	37.6	0.268	3508.5	4119
0848 044	5x95 SM	43.7	0.193	4733.1	5793
0848 045	5x120 SM	47.4	0.153	5947.8	6833
0848 046	5x150 SM	53.0	0.124	7412.6	8555
0848 047	5x185 SM	58.6	0.0991	9113.7	10554
0848 048	5x240 SM	62.3	0.0754	11770.8	12974

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKYekwżo 0,6/1 kV, YnKYekw 0,6/1 kV

### PVC INSULATED AND SHEATHED, TAPE SHIELDED POWER CABLES



## APPLICATIONS

YnKYekwżo 0,6/1 kV and YnKYekw 0,6/1 kV shielded power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

The cables are protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cables.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in YnKYekwżo 0,6/1 kV cable,
- insulated conductors laid-up in a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper drain wire,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**YKYekwżo-O 0,6/1 kV** and **YKYekw-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSekwżo 0,6/1 kV** and **XnKXSekw 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YnKYekwżo 0,6/1 kV, YnKYekw 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
YnKYekw 0,6/1 kV					
0983 002	2x1 RE	8.1	18.1	31.6	89
0983 001	2x1,5 RE	8.6	12.1	43.6	104
0983 007	2x2,5 RE	9.4	7.41	62.8	129
0983 008	2x4 RE	11.1	4.61	95.8	182
0983 009	2x6 RE	12.1	3.08	134.2	229
0983 010	2x10 RE	13.7	1.83	211.0	319
0983 011	2x16 RE	15.5	1.15	331.0	444
YnKYekwżo 0,6/1 kV					
1237 005	3x1 RE	8.5	18.1	41.2	107
1237 006	3x1,5 RE	9.0	12.1	58.0	127
1237 002	3x2,5 RE	9.8	7.41	86.8	162
1237 007	3x4 RE	11.7	4.61	134.2	234
1237 008	3x6 RE	12.8	3.08	191.8	301
1237 009	3x10 RE	14.5	1.83	307.0	430
1237 010	3x16 RE	16.4	1.15	484.6	610

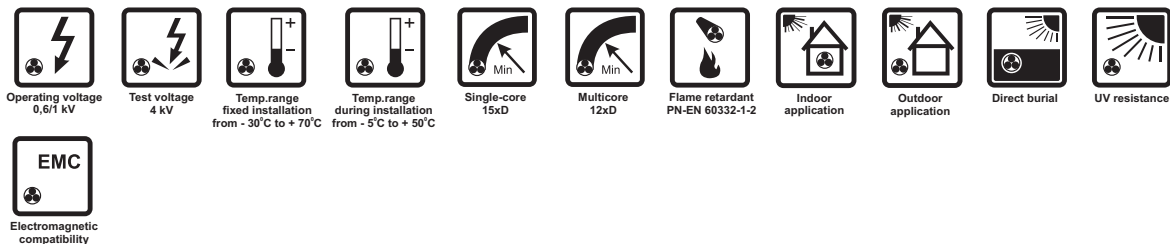
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
YnKYekwżo 0,6/1 kV					
1237 001	4x1 RE	9.1	18.1	50.8	127
1237 011	4x1,5 RE	9.7	12.1	72.4	152
1237 004	4x2,5 RE	10.6	7.41	110.8	197
1237 012	4x4 RE	12.7	4.61	172.6	293
1237 013	4x6 RE	13.9	3.08	249.4	380
1237 014	4x10 RE	15.8	1.83	403.0	551
1237 015	4x16 RE	18.0	1.15	638.2	791
YnKYekwżo 0,6/1 kV					
1237 016	5x1 RE	9.8	18.1	60.4	150
1237 003	5x1,5 RE	10.5	12.1	86.8	183
1237 017	5x2,5 RE	11.5	7.41	134.8	240
1237 018	5x4 RE	13.8	4.61	211.0	356
1237 019	5x6 RE	15.2	3.08	307.0	465
1237 020	5x10 RE	17.3	1.83	499.0	680
1237 021	5x16 RE	19.8	1.15	791.8	981

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKYekwžo 0,6/1 kV, YKYekw 0,6/1 kV

### PVC INSULATED AND SHEATHED, TAPE SHIELDED POWER CABLES



## APPLICATIONS

**YKYekwžo 0,6/1 kV** and **YKYekw 0,6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

The cables are protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cables.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire,
- PVC insulation - colours in accordance with PN-HD 308 standard, green-yellow protective conductor in **YKYekwžo 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper drain wire,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**YKYekwžo-O 0,6/1 kV** and **YKYekw-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKXSekwžo 0,6/1 kV** and **XnKXSekw 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKYekwžo 0,6/1 kV, YKYekw 0,6/1 kV

### CHARACTERISTICS

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90401, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKYekwžo 0,6/1 kV					
0657 001	2x1 RE	8.1	18.1	31.6	89
0657 008	2x1,5 RE	8.6	12.1	43.6	104
0657 016	2x2,5 RE	9.4	7.41	62.8	129
0657 011	2x4 RE	11.1	4.61	95.8	182
0657 018	2x6 RE	12.1	3.08	134.2	229
0657 019	2x10 RE	13.7	1.83	211.0	319
0657 020	2x16 RE	15.5	1.15	331.0	444
YKYekwžo 0,6/1 kV					
0933 004	3x1 RE	8.5	18.1	41.2	107
0933 005	3x1,5 RE	9.0	12.1	58.0	127
0933 002	3x2,5 RE	9.8	7.41	86.8	162
0933 009	3x4 RE	11.7	4.61	134.2	234
0933 010	3x6 RE	12.8	3.08	191.8	301
0933 011	3x10 RE	14.5	1.83	307.0	430
0933 012	3x16 RE	16.4	1.15	484.6	610

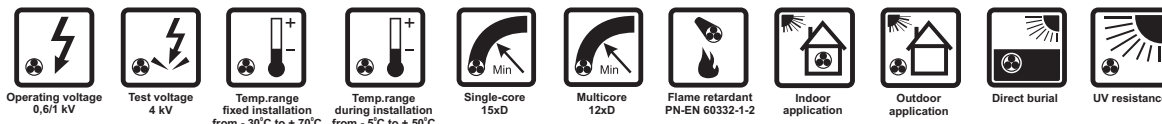
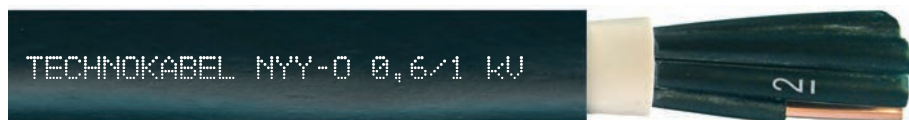
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	DC conductor resistance at 20°C, maximum	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	Ω/km	kg/km	kg/km
YKYekwžo 0,6/1 kV					
0933 013	4x1 RE	9.1	18.1	50.8	127
0933 014	4x1,5 RE	9.7	12.1	72.4	152
0933 001	4x2,5 RE	10.6	7.41	110.8	197
0933 015	4x4 RE	12.7	4.61	172.6	293
0933 016	4x6 RE	13.9	3.08	249.4	380
0933 017	4x10 RE	15.8	1.83	403.0	551
0933 018	4x16 RE	18.0	1.15	638.2	791
YKYekwžo 0,6/1 kV					
0933 019	5x1 RE	9.8	18.1	60.4	150
0933 020	5x1,5 RE	10.5	12.1	86.8	183
0933 008	5x2,5 RE	11.5	7.41	134.8	240
0933 021	5x4 RE	13.8	4.61	211.0	356
0933 022	5x6 RE	15.2	3.08	307.0	465
0933 023	5x10 RE	17.3	1.83	499.0	680
0933 024	5x16 RE	19.8	1.15	791.8	981

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NYY-O 0,6/1 kV, NYY-J 0,6/1 kV, NYY-JZ 0,6/1 kV

### PVC INSULATED AND SHEATHED POWER CABLES



## APPLICATIONS

**NYY-O 0,6/1 kV** and **NYY-J 0,6/1 kV** power cables are designed for electric power transmission. They are also applied in power circuits in industrial plants and power stations and in local distribution networks.

The cables are suitable for indoor and outdoor installations, for laying in cable ducts and for direct earth burial.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE - class 1 circular single-wire,
  - RM - class 2 circular multi-wire,
  - SM - class 2 sector shaped multi-wire.
- PVC insulation – colours:
  - in accordance with PN-HD 308 standard,
  - or black and white conductor number printed on it,
  - green-yellow protective conductor in **NYY-J 0,6/1 kV** and **NYY-JZ 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- inner covering,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**N2XY-O 0,6/1 kV** and **N2XY-J 0,6/1 kV** - cross-linked polyethylene (XLPE) insulated and PVC sheathed power cables with better electric performances, smaller dimensions and weight in relation to the PVC insulated cables.

**N2XH-O 0,6/1 kV** and **N2XH-J 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.



## NYY-O 0,6/1 kV, NYY-J 0,6/1 kV, NYY-JZ 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1,5	2,5	4	6	10	16	25	35
DC conductor resistance at 20°C, maximum	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524
Conductor cross-section	mm <sup>2</sup>	50	70	95	120	150	185	240	300
DC conductor resistance at 20°C, maximum	Ω/km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4.0 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-HD 603 S1, DIN VDE 0276 part 603, IEC 60502-1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
NYY-O				
1013 008	1 x 1,5 RE	7.0	14.4	65.0
1013 007	1 x 2,5 RE	7.4	24.0	85.0
1013 009	1 x 4,0 RE	8.3	38.4	110.0
1013 010	1 x 6,0 RE	8.8	58.0	135.0
1013 011	1 x 10 RE	9.6	96.0	185.0
1013 012	1 x 16 RE	10.6	154.0	260.0
1013 013	1 x 25 RM	12.4	240.0	365.0
1013 014	1 x 35 RM	13.4	336.0	475.0
1013 015	1 x 50 RM	15.0	480.0	615.0
1013 016	1 x 70 RM	17.0	672.0	830.0
1013 005	1 x 95 RM	19.0	912.0	1120.0
1013 017	1 x 120 RM	20.5	1152.0	1360.0
1013 018	1 x 150 RM	22.0	1440.0	1650.0
1013 019	1 x 185 RM	24.5	1776.0	2040.0
1013 020	1 x 240 RM	27.0	2304.0	2620.0
1013 021	1 x 300 RM	30.0	2880.0	3270.0
NYY-O				
1013 022	2 x 1,5 RE	12.0	28.8	193
1013 023	2 x 2,5 RE	12.8	48	235
1013 024	2 x 4,0 RE	14.5	77	320
1013 025	2 x 6,0 RE	15.5	115	385
1013 026	2 x 10 RE	17.2	192	520
1013 027	2 x 16 RE	19.2	307	705
1013 028	2 x 25 RM	22.8	480	1010
NYY-J				
1013 003	3 x 1,5 RE	12.4	43.2	220
1013 004	3 x 2,5 RE	13.3	72.0	270

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1013 029	3 x 4,0 RE	15.2	115.0	375
1013 030	3 x 6,0 RE	16.3	173.0	460
1013 031	3 x 10 RE	18.1	288.0	635
1013 032	3 x 16 RE	20.2	461.0	890
1013 033	3 x 25 RM	24.1	720.0	1270
1013 034	3 x 25 RM/ 16 RE	26.3	874.0	1550.0
1013 035	3 x 35 SM/ 16 RE	27.5	1162.0	1700.0
1013 036	3 x 50 SM/ 25 RM	30.5	1680.0	2200.0
NYY-J				
1013 044	4 x 1,5 RE	13.2	58.0	255
1013 037	4 x 2,5 RE	14.2	96.0	320
1013 045	4 x 4,0 RE	16.3	154.0	445
1013 046	4 x 6,0 RE	17.5	230.0	560
1013 047	4 x 10 RE	19.5	384.0	780
1013 048	4 x 16 RE	21.9	614.0	1100
1013 042	4 x 25 RM	26.3	960.0	1590
1013 049	4 x 35 SM	27.5	1344.0	1770
1013 050	4 x 50 SM	30.5	1920.0	2350
NYY-J				
1013 052	5 x 1,5 RE	14.0	72.0	295
1013 038	5 x 2,5 RE	15.1	120.0	370
1013 039	5 x 4,0 RE	17.5	192.0	525
1013 040	5 x 6,0 RE	18.9	288.0	660
1013 041	5 x 10 RE	21.1	480.0	935
1013 001	5 x 16 RE	23.8	768.0	1330
1013 043	5 x 25 RM	28.9	1200.0	1930
1013 053	5 x 35 SM	32.4	1680.0	2600
1013 051	5 x 50 SM	36.9	2400.0	3600

## NYY-O 0,6/1 kV, NYY-J 0,6/1 kV, NYY-JZ 0,6/1 kV

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
NYY-JZ				
1013 056	7 x 1,5 RE	15.0	101.0	350
1013 054	10 x 1,5 RE	18.0	144.0	480
1013 055	12 x 1,5 RE	18.5	173.0	520
1013 057	14 x 1,5 RE	19.3	202.0	575
1013 058	19 x 1,5 RE	21.0	274.0	715
1013 059	24 x 1,5 RE	24.0	346.0	880
1013 060	30 x 1,5 RE	25.2	432.0	1030
1013 061	40 x 1,5 RE	27.9	576.0	1300
NYY-JZ				
1013 062	7 x 2,5 RE	16.2	168.0	450
1013 063	10 x 2,5 RE	19.6	240.0	625

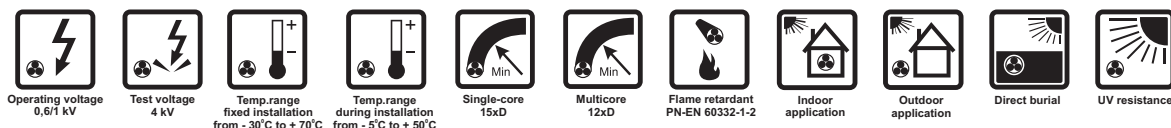
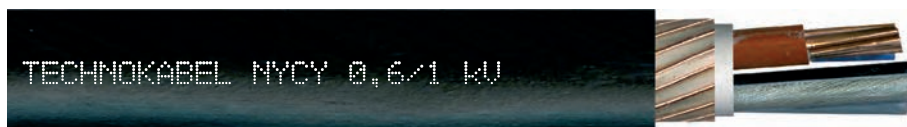
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1013 064	12 x 2,5 RE	20.1	288.0	680
1013 065	14 x 2,5 RE	21.0	336.0	760
1013 066	19 x 2,5 RE	23.0	456.0	955
1013 067	24 x 2,5 RE	26.4	576.0	1190
1013 068	30 x 2,5 RE	27.8	720.0	1400
1013 069	40 x 2,5 RE	31.0	960.0	1790
NYY-JZ				
1013 070	7 x 4 RE	18.9	269.0	645
1013 071	10 x 4 RE	23.1	384.0	905
1013 072	12 x 4 RE	23.8	461.0	1000
1013 073	14 x 4 RE	24.9	538.0	1120
1013 074	19 x 4 RE	27.4	730.0	1430

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NYCY 0,6/1 kV

### PVC INSULATED AND SHEATHED POWER CABLES WITH CONCENTRIC CONDUCTOR



## APPLICATIONS

**NYCY 0,6/1 kV** power cables are designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE - class 1 circular single-wire,
  - RM - class 2 circular multi-wire,
  - SM - class 2 sector shaped multi-wire.
- PVC insulation – colours:
  - to 5 wires in accordance with PN-HD 308 S2 standard,
  - above 5 wires in accordance with EN 50334 standard,
- insulated conductors laid-up in layers,
- inner covering,
- concentric conductor formed by bare copper wires with counter helix of copper tape,
- polyester tape,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**N2XCH 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**NHXCH FE180 PH90/E30-E90 0,6/1 kV** – fire-resistant power cables with halogen free insulation and sheath, intended for fire devices, operating in case of a fire (e.g. for supplying water pumps, smoke removal fans).

## NYCY 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1,5	2,5	4	6	10	16	25	35
DC conductor resistance at 20°C, maximum	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4.0 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		MiniMinimum bending radius	
in work conditions	+ 70°C	single wire cables	15 x cable diameter
in short-circuit	+ 160°C	multi wire cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-HD 603 S1, DIN VDE 0276 part 603, IEC 60502-1

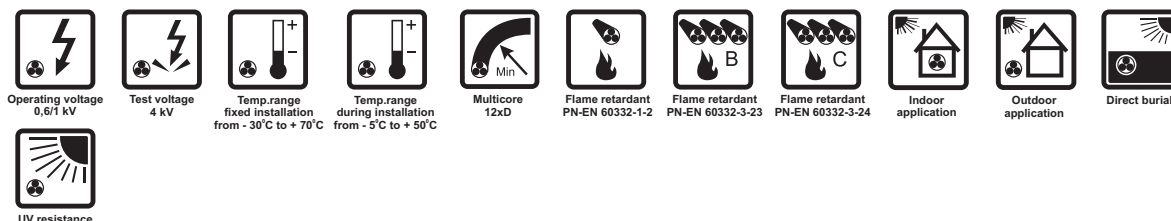
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1293 003	2 x 1,5 RE/1,5	13.3	52	240
1293 006	2 x 2,5 RE/2,5	14.5	80	295
1293 017	2 x 4 RE/4	16.2	123	390
1293 007	2 x 6 RE/6	17.8	182	505
1293 018	2 x 10 RE/10	19.7	312	670
1293 008	2 x 16 RE/16	22.2	489	940
1293 005	3 x 1,5 RE/1,5	13.6	66	265
1293 009	3 x 2,5 RE/2,5	14.6	104	320
1293 004	3 x 4 RE/4	16.9	161	450
1293 010	3 x 6 RE/6	18.0	240	540
1293 011	3 x 10 RE/10	20.4	408	780
1293 012	3 x 16 RE/16	23.2	643	1140
1293 001	4 x 1,5 RE/1,5	14.4	81	300
1293 013	4 x 2,5 RE/2,5	15.5	128	370
1293 014	4 x 4 RE/4	18.0	200	525
1293 019	4 x 6 RE/6	19.2	297	645
1293 002	4 x 10 RE/10	21.8	504	940
1293 020	4 x 16 RE/16	24.4	796	1310
1293 015	4 x 25 RM/16	28.8	1152	1820
1293 021	4 x 35 RM/16	31.2	1536	2340
1293 022	5 x 1,5 RE/1,5	15.3	95	340
1293 023	5 x 2,5 RE/2,5	16.5	152	430
1293 024	5 x 4 RE/4	19.2	238	615
1293 025	5 x 6 RE/6	20.6	355	760
1293 026	5 x 10 RE/10	23.4	600	1110
1293 027	7 x 1,5 RE/2,5	16.3	133	405
1293 028	7 x 2,5 RE/2,5	17.5	200	505
1293 029	7 x 4 RE/4	20.1	315	715

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1293 030	7 x 6 RE/6	22.0	470	925
1293 031	10 x 1,5 RE/2,5	19.1	176	535
1293 032	10 x 2,5 RE/4	20.9	286	695
1293 033	10 x 4 RE/6	24.7	451	1030
1293 034	12 x 1,5 RE/2,5	19.6	205	585
1293 035	12 x 2,5 RE/4	21.4	334	760
1293 036	12 x 4 RE/6	25.4	528	1120
1293 037	14 x 1,5 RE/2,5	20.4	234	645
1293 016	14 x 2,5 RE/6	22.6	403	870
1293 038	16 x 1,5 RE/4	21.4	276	715
1293 039	16 x 2,5 RE/6	23.6	451	960
1293 040	19 x 1,5 RE/4	22.3	320	795
1293 041	19 x 2,5 RE/6	24.6	523	1080
1293 042	21 x 1,5 RE/6	23.5	369	885
1293 043	21 x 2,5 RE/10	25.6	571	1170
1293 044	24 x 1,5 RE/6	25.6	413	1010
1293 045	24 x 2,5 RE/10	28.0	696	1320
1293 046	30 x 1,5 RE/6	26.8	499	1160
1293 047	30 x 2,5 RE/10	29.6	840	1560
1293 048	40 x 1,5 RE/6	29.3	696	1420
1293 049	40 x 2,5 RE/10	33.0	1080	1990

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKSXS-Nr 0,6/1 kV, YnKSXSžo-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED CONTROL CABLES



## APPLICATIONS

**YnKSXS-Nr 0,6/1 kV** and **YnKSXSžo-Nr 0,6/1 kV** control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YnKSXSžo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSžo-Nr-O 0,6/1 kV** and **YKSXS-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YKSXSžo-Nr 0,6/1 kV** and **YKSXS-Nr 0,6/1 kV** - cables with inner covering extruded directly on a cable core, recommended for direct earth burial.

**XnKSXSžo-Nr 0,6/1 kV** and **XnKSXS-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire or steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YnKSXS-Nr 0,6/1 kV, YnKSXSzo-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

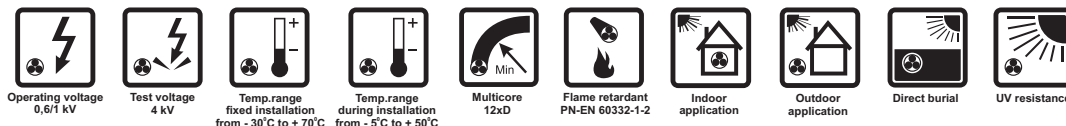
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YnKSXS-Nr 0,6/1 kV				
0789 007	7 x 1	10.1	67.2	153
0789 004	10 x 1	12.4	96.0	207
0789 014	12 x 1	12.8	115.2	234
0789 015	14 x 1	13.4	134.4	262
0789 016	16 x 1	14.1	153.6	294
0789 017	19 x 1	14.8	182.4	332
0789 001	24 x 1	17.1	230.4	410
0789 018	30 x 1	18.0	288.0	487
0789 019	37 x 1	19.4	355.2	580
0789 020	48 x 1	22.2	460.8	741
0789 021	61 x 1	24.2	585.6	907
YnKSXS-Nr 0,6/1 kV				
0789 022	7 x 1,5	10.9	100.8	193
0789 003	10 x 1,5	13.4	144.0	263
0789 012	12 x 1,5	13.8	172.8	299
0789 006	14 x 1,5	14.5	201.6	338
0789 023	16 x 1,5	15.2	230.4	379
0789 009	19 x 1,5	16.0	273.6	432
0789 005	24 x 1,5	18.5	345.6	535
0789 011	30 x 1,5	19.6	432.0	643
0789 024	37 x 1,5	21.1	532.8	770
0789 025	48 x 1,5	24.3	691.2	984
0789 026	61 x 1,5	26.6	878.4	1228
YnKSXS-Nr 0,6/1 kV				
0789 002	7 x 2,5	12.0	168.0	264
0789 027	10 x 2,5	14.9	240.0	365

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YnKSXS-Nr 0,6/1 kV				
0789 028	12 x 2,5	15.4	288.0	419
0789 029	14 x 2,5	16.2	336.0	477
0789 030	16 x 2,5	17.0	384.0	537
0789 010	19 x 2,5	17.9	456.0	618
0789 031	24 x 2,5	20.8	576.0	768
0789 032	30 x 2,5	22.2	720.0	941
0789 033	37 x 2,5	23.9	888.0	1129
0789 013	48 x 2,5	27.5	1152.0	1450
YnKSXS-Nr 0,6/1 kV				
0789 034	7 x 4	13.4	268.8	372
0789 035	10 x 4	16.8	384.0	518
0789 036	12 x 4	17.3	460.8	597
0789 037	14 x 4	18.2	537.6	682
0789 038	16 x 4	19.2	614.4	773
YnKSXS-Nr 0,6/1 kV				
0789 039	7 x 6	14.9	403.2	510
0789 040	10 x 6	18.8	576.0	713
0789 041	12 x 6	19.4	691.2	827
0789 042	14 x 6	20.4	806.4	949
YnKSXS-Nr 0,6/1 kV				
0789 043	7 x 10	17.3	672.0	785
0789 044	10 x 10	22.2	960.0	1116
YnKSXS-Nr 0,6/1 kV				
0789 045	7 x 16	20.0	1075.2	1175
0789 046	10 x 16	26.0	1536.0	1674

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKSXSzo-Nr 0,6/1 kV, YKSXS-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSzo-Nr 0,6/1 kV** and **YKSXS-Nr 0,6/1 kV** control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSzo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSzo-Nr-O 0,6/1 kV** and **YKSXS-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YKSWSzo-Nr 0,6/1 kV** and **YKSWS-Nr 0,6/1 kV** - cables with inner covering extruded directly on a cable core, recommended for direct earth burial.

**XnKSXSzo-Nr 0,6/1 kV** and **XnKSXS-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKSXSz0-Nr 0,6/1 kV, YKSXS-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSz0-Nr 0,6/1 kV				
1610 011	7 x 1	10.1	67.2	153
1610 012	10 x 1	12.4	96.0	207
1610 013	12 x 1	12.8	115.2	234
1610 014	14 x 1	13.4	134.4	262
1610 015	16 x 1	14.1	153.6	294
1610 016	19 x 1	14.8	182.4	332
1610 017	24 x 1	17.1	230.4	410
1610 018	30 x 1	18.0	288.0	487
1610 019	37 x 1	19.4	355.2	580
1610 020	48 x 1	22.2	460.8	741
1610 021	61 x 1	24.2	585.6	907
YKSXSz0-Nr 0,6/1 kV				
1610 003	7 x 1,5	10.9	100.8	193
1610 004	10 x 1,5	13.4	144.0	263
1610 005	12 x 1,5	13.8	172.8	299
1610 002	14 x 1,5	14.5	201.6	338
1610 022	16 x 1,5	15.2	230.4	379
1610 023	19 x 1,5	16.0	273.6	432
1610 024	24 x 1,5	18.5	345.6	535
1610 025	30 x 1,5	19.6	432.0	643
1610 026	37 x 1,5	21.1	532.8	770
1610 027	48 x 1,5	24.3	691.2	984
1610 028	61 x 1,5	26.6	878.4	1228
YKSXSz0-Nr 0,6/1 kV				
1610 001	7 x 2,5	12.0	168.0	264
1610 006	10 x 2,5	14.9	240.0	365

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSz0-Nr 0,6/1 kV				
1610 007	12 x 2,5	15.4	288.0	419
1610 008	14 x 2,5	16.2	336.0	477
1610 029	16 x 2,5	17.0	384.0	537
1610 030	19 x 2,5	17.9	456.0	618
1610 009	24 x 2,5	20.8	576.0	768
1610 031	30 x 2,5	22.2	720.0	941
1610 010	37 x 2,5	23.9	888.0	1129
1610 032	48 x 2,5	27.5	1152.0	1450
YKSXSz0-Nr 0,6/1 kV				
1610 033	7 x 4	13.4	268.8	372
1610 034	10 x 4	16.8	384.0	518
1610 035	12 x 4	17.3	460.8	597
1610 036	14 x 4	18.2	537.6	682
1610 037	16 x 4	19.2	614.4	773
YKSXSz0-Nr 0,6/1 kV				
1610 038	7 x 6	14.9	403.2	510
1610 039	10 x 6	18.8	576.0	713
1610 040	12 x 6	19.4	691.2	827
1610 041	14 x 6	20.4	806.4	949
YKSXSz0-Nr 0,6/1 kV				
1610 042	7 x 10	17.3	672.0	785
1610 043	10 x 10	22.2	960.0	1116
YKSXSz0-Nr 0,6/1 kV				
1610 044	7 x 16	20.0	1075.2	1175
1610 045	10 x 16	26.0	1536.0	1674

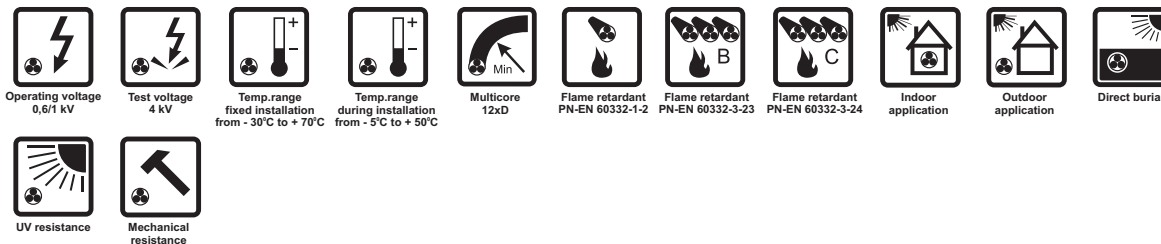
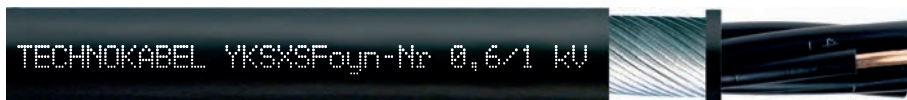
Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## YKSXSFOynżo-Nr 0,6/1 kV, YKSXSFOyn-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, STEEL WIRE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSFOynżo-Nr 0,6/1 kV** and **YKSXSFOyn-Nr 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSFOynżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSFOynżo-Nr-O 0,6/1 kV** and **YKSXSFOyn-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSFOynżo-Nr 0,6/1 kV** and **XnKSXSFOyn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSXSFOynżo-Nr 0,6/1 kV, YKSXSFOyn-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>o/U</sub>	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	12 x cable diameter
in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

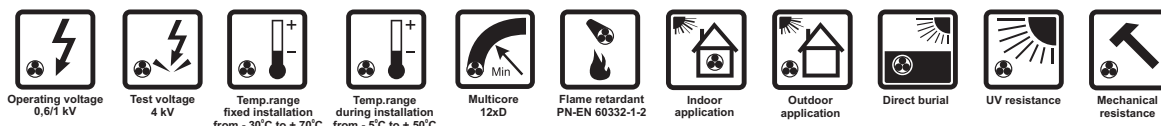
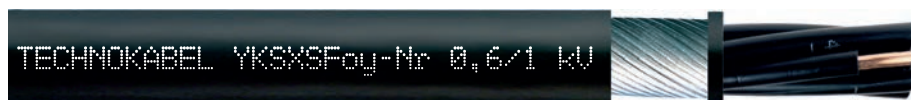
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSFOynżo-Nr 0,6/1 kV				
1490 003	7 x 1	13.3	67.2	392
1490 004	10 x 1	15.8	96.0	514
1490 005	12 x 1	16.2	115.2	545
1490 006	14 x 1	16.8	134.4	587
1490 007	16 x 1	17.5	153.6	638
1490 008	19 x 1	18.2	182.4	690
1490 009	24 x 1	21.4	230.4	980
1490 010	30 x 1	22.3	288.0	1081
1490 011	37 x 1	23.9	355.2	1227
1490 012	48 x 1	26.5	460.8	1460
1490 013	61 x 1	28.7	585.6	1708
YKSXSFOynżo-Nr 0,6/1 kV				
1490 001	7 x 1,5	14.1	100.8	453
1490 014	10 x 1,5	16.8	144.0	594
1490 015	12 x 1,5	17.2	172.8	640
1490 016	14 x 1,5	17.9	201.6	692
1490 017	16 x 1,5	18.6	230.4	747
1490 018	19 x 1,5	19.6	273.6	830
1490 019	24 x 1,5	23.0	345.6	1161
1490 020	30 x 1,5	24.1	432.0	1294
1490 021	37 x 1,5	25.6	532.8	1473
1490 022	48 x 1,5	28.8	691.2	1791
1490 023	61 x 1,5	31.1	878.4	2104
YKSXSFOynżo-Nr 0,6/1 kV				
1490 024	7 x 2,5	15.2	168.0	554
1490 025	10 x 2,5	18.3	240.0	736

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1490 026	12 x 2,5	18.8	288.0	800
1490 002	14 x 2,5	19.8	336.0	887
1490 027	16 x 2,5	21.3	384.0	1099
1490 028	19 x 2,5	22.2	456.0	1205
1490 029	24 x 2,5	25.3	576.0	1470
1490 030	30 x 2,5	26.5	720.0	1667
1490 031	37 x 2,5	28.4	888.0	1925
1490 032	48 x 2,5	32.6	1152.0	2540
YKSXSFOynżo-Nr 0,6/1 kV				
1490 033	7 x 4	16.8	268.8	704
1490 034	10 x 4	21.1	384.0	1093
1490 035	12 x 4	21.6	460.8	1183
1490 036	14 x 4	22.5	537.6	1294
1490 037	16 x 4	23.7	614.4	1434
YKSXSFOynżo-Nr 0,6/1 kV				
1490 038	7 x 6	18.3	403.2	882
1490 039	10 x 6	23.3	576.0	1376
1490 040	12 x 6	23.9	691.2	1502
1490 041	14 x 6	24.9	806.4	1650
YKSXSFOynżo-Nr 0,6/1 kV				
1490 042	7 x 10	21.6	672.0	1376
1490 043	10 x 10	26.5	960.0	1884
YKSXSFOynżo-Nr 0,6/1 kV				
1490 044	7 x 16	24.5	1075.2	1875
1490 045	10 x 16	30.5	1536.0	2619

Other cross-sections and number of conductors available on request.  
TECHNOKABEL S.A. reserves the right to changespecifications without prior notice.

## YKSXSFOyżo-Nr 0,6/1 kV, YKSXSFOy-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, STEEL WIRE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSFOyżo-Nr 0,6/1 kV** and **YKSXSFOy-Nr 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSFOyżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSFOyżo-Nr-O 0,6/1 kV** and **YKSXSFOy-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSFOxn-Nr 0,6/1 kV** and **XnKSXSFOxn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSXS Foyżo-Nr 0,6/1 kV, YKSXS Foy-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>o/U</sub>	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

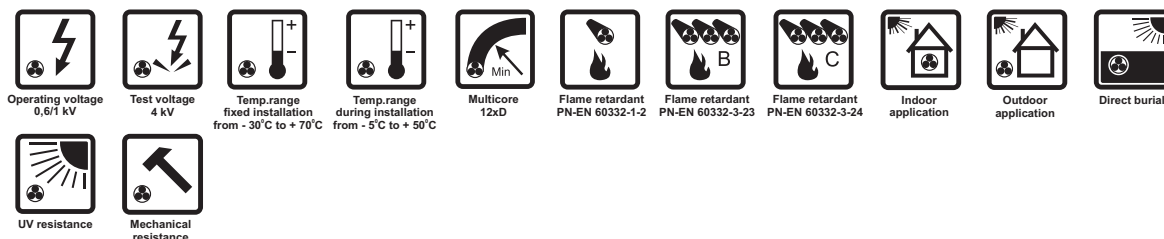
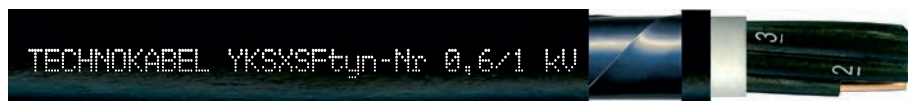
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXS Foyżo-Nr 0,6/1 kV				
1483 008	7 x 1	13.3	67.2	392
1483 009	10 x 1	15.8	96.0	514
1483 010	12 x 1	16.2	115.2	545
1483 011	14 x 1	16.8	134.4	587
1483 012	16 x 1	17.5	153.6	638
1483 013	19 x 1	18.2	182.4	690
1483 014	24 x 1	21.4	230.4	980
1483 015	30 x 1	22.3	288.0	1081
1483 016	37 x 1	23.9	355.2	1227
1483 017	48 x 1	26.5	460.8	1460
1483 018	61 x 1	28.7	585.6	1708
YKSXS Foyżo-Nr 0,6/1 kV				
1483 001	7 x 1,5	14.1	100.8	453
1483 019	10 x 1,5	16.8	144.0	594
1483 020	12 x 1,5	17.2	172.8	640
1483 002	14 x 1,5	17.9	201.6	692
1483 021	16 x 1,5	18.6	230.4	747
1483 022	19 x 1,5	19.6	273.6	830
1483 023	24 x 1,5	23.0	345.6	1161
1483 024	30 x 1,5	24.1	432.0	1294
1483 025	37 x 1,5	25.6	532.8	1473
1483 026	48 x 1,5	28.8	691.2	1791
1483 027	61 x 1,5	31.1	878.4	2104
YKSXS Foyżo-Nr 0,6/1 kV				
1483 003	7 x 2,5	15.2	168.0	554
1483 005	10 x 2,5	18.3	240.0	736

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXS Foyżo-Nr 0,6/1 kV				
1483 004	12 x 2,5	18.8	288.0	800
1483 028	14 x 2,5	19.8	336.0	887
1483 029	16 x 2,5	21.3	384.0	1099
1483 006	19 x 2,5	22.2	456.0	1205
1483 007	24 x 2,5	25.3	576.0	1470
1483 030	30 x 2,5	26.5	720.0	1667
1483 031	37 x 2,5	28.4	888.0	1925
1483 032	48 x 2,5	32.6	1152.0	2540
YKSXS Foyżo-Nr 0,6/1 kV				
1483 033	7 x 4	16.8	268.8	704
1483 034	10 x 4	21.1	384.0	1093
1483 035	12 x 4	21.6	460.8	1183
1483 036	14 x 4	22.5	537.6	1294
1483 037	16 x 4	23.7	614.4	1434
YKSXS Foyżo-Nr 0,6/1 kV				
1483 038	7 x 6	18.3	403.2	882
1483 039	10 x 6	23.3	576.0	1376
1483 040	12 x 6	23.9	691.2	1502
1483 041	14 x 6	24.9	806.4	1650
YKSXS Foyżo-Nr 0,6/1 kV				
1483 042	7 x 10	21.6	672.0	1376
1483 043	10 x 10	26.5	960.0	1884
YKSXS Foyżo-Nr 0,6/1 kV				
1483 044	7 x 16	24.5	1075.2	1875
1483 045	10 x 16	30.5	1536.0	2619

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKSXSFTyrzo-Nr 0,6/1 kV, YKSXSFTyn-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, STEEL TAPE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSFTyrzo-Nr 0,6/1 kV** and **YKSXSFTyn-Nr 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSFTyrzo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSFTyrzo-Nr-O 0,6/1 kV** and **YKSXSFTyn-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSFTyrzo-Nr 0,6/1 kV** and **XnKSXSFTyn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSXSFTynżo-Nr 0,6/1 kV, YKSXSFTyn-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		> 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSFTynżo-Nr 0,6/1 kV				
1760 001	7 x 1	12.3	67.2	278
1760 002	10 x 1	14.6	96.0	366
1760 003	12 x 1	15.0	115.2	395
1760 004	14 x 1	15.8	134.4	438
1760 005	16 x 1	16.5	153.6	479
1760 006	19 x 1	17.2	182.4	526
1760 007	24 x 1	19.7	230.4	648
1760 008	30 x 1	20.6	288.0	734
1760 009	37 x 1	22.0	355.2	846
1760 010	48 x 1	24.8	460.8	1045
1760 011	61 x 1	27.0	585.6	1253
YKSXSFTyn-Nr 0,6/1 kV				
1760 012	7 x 1,5	13.1	100.8	330
1760 013	10 x 1,5	15.8	144.0	445
1760 014	12 x 1,5	16.2	172.8	483
1760 015	14 x 1,5	16.9	201.6	530
1760 016	16 x 1,5	17.6	230.4	580
1760 017	19 x 1,5	18.4	273.6	643
1760 018	24 x 1,5	21.1	345.6	796
1760 019	30 x 1,5	22.2	432.0	915
1760 020	37 x 1,5	23.9	532.8	1073
1760 021	48 x 1,5	27.1	691.2	1337
1760 022	61 x 1,5	29.2	878.4	1597
YKSXSFTynżo-Nr 0,6/1 kV				
1760 023	7 x 2,5	14.2	168.0	417
1760 024	10 x 2,5	17.3	240.0	572

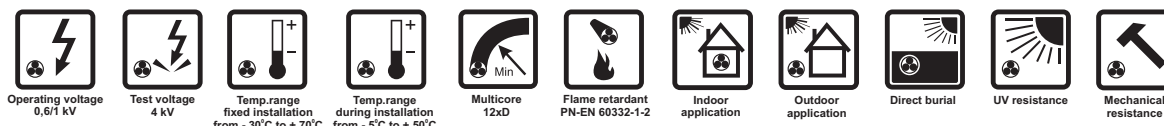
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSFTynżo-Nr 0,6/1 kV				
1760 025	12 x 2,5	17.8	288.0	629
1760 026	14 x 2,5	18.6	336.0	696
1760 027	16 x 2,5	19.6	384.0	776
1760 028	19 x 2,5	20.5	456.0	868
1760 029	24 x 2,5	23.6	576.0	1078
1760 030	30 x 2,5	24.8	720.0	1252
1760 031	37 x 2,5	26.5	888.0	1466
1760 032	48 x 2,5	30.1	1152.0	1841
YKSXSFTynżo-Nr 0,6/1 kV				
1760 033	7 x 4	15.8	268.8	555
1760 034	10 x 4	19.4	384.0	769
1760 035	12 x 4	19.9	460.8	852
1760 036	14 x 4	20.8	537.6	948
1760 037	16 x 4	21.8	614.4	1052
YKSXSFTynżo-Nr 0,6/1 kV				
1760 038	7 x 6	17.3	403.2	718
1760 039	10 x 6	21.4	576.0	1002
1760 040	12 x 6	22.0	691.2	1122
1760 041	14 x 6	23.2	806.4	1266
YKSXSFTynżo-Nr 0,6/1 kV				
1760 042	7 x 10	19.9	672.0	1045
1760 043	10 x 10	24.8	960.0	1469
YKSXSFTynżo-Nr 0,6/1 kV				
1760 044	7 x 16	22.6	1075.2	1487
1760 045	10 x 16	28.6	1536.0	2118

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKSXSFTyżo-Nr 0,6/1 kV, YKSXSFTy-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, STEEL TAPE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSFTyżo-Nr 0,6/1 kV** and **YKSXSFTy-Nr 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSFTyżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSFTyżo-Nr-O 0,6/1 kV** and **YKSXSFTy-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSFTxn-Nr 0,6/1 kV** and **XnKSXSFTxn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSXSftyżo-Nr 0,6/1 kV, YKSXSfty-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSftyżo-Nr 0,6/1 kV				
1362 001	7 x 1	12.3	67.2	278
1362 015	10 x 1	14.6	96.0	366
1362 016	12 x 1	15.0	115.2	395
1362 017	14 x 1	15.8	134.4	438
1362 018	16 x 1	16.5	153.6	479
1362 019	19 x 1	17.2	182.4	526
1362 020	24 x 1	19.7	230.4	648
1362 021	30 x 1	20.6	288.0	734
1362 022	37 x 1	22.0	355.2	846
1362 023	48 x 1	24.8	460.8	1045
1362 024	61 x 1	27.0	585.6	1253
YKSXSftyżo-Nr 0,6/1 kV				
1362 003	7 x 1,5	13.1	100.8	330
1362 025	10 x 1,5	15.8	144.0	445
1362 026	12 x 1,5	16.2	172.8	483
1362 008	14 x 1,5	16.9	201.6	530
1362 027	16 x 1,5	17.6	230.4	580
1362 009	19 x 1,5	18.4	273.6	643
1362 010	24 x 1,5	21.1	345.6	796
1362 013	30 x 1,5	22.2	432.0	915
1362 011	37 x 1,5	23.9	532.8	1073
1362 028	48 x 1,5	27.1	691.2	1337
1362 029	61 x 1,5	29.2	878.4	1597
YKSXSftyżo-Nr 0,6/1 kV				
1362 012	7 x 2,5	14.2	168.0	417
1362 006	10 x 2,5	17.3	240.0	572

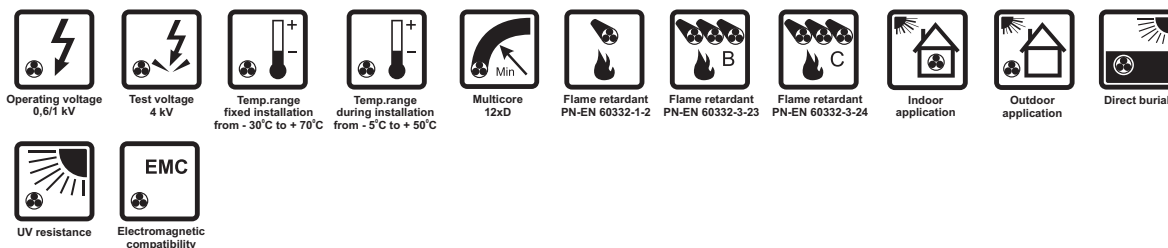
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSftyżo-Nr 0,6/1 kV				
1362 030	12 x 2,5	17.8	288.0	629
1362 002	14 x 2,5	18.6	336.0	696
1362 031	16 x 2,5	19.6	384.0	776
1362 032	19 x 2,5	20.5	456.0	868
1362 014	24 x 2,5	23.6	576.0	1078
1362 033	30 x 2,5	24.8	720.0	1252
1362 034	37 x 2,5	26.5	888.0	1466
1362 035	48 x 2,5	30.1	1152.0	1841
YKSXSftyżo-Nr 0,6/1 kV				
1362 004	7 x 4	15.8	268.8	555
1362 005	10 x 4	19.4	384.0	769
1362 036	12 x 4	19.9	460.8	852
1362 007	14 x 4	20.8	537.6	948
1362 037	16 x 4	21.8	614.4	1052
YKSXSftyżo-Nr 0,6/1 kV				
1362 038	7 x 6	17.3	403.2	718
1362 039	10 x 6	21.4	576.0	1002
1362 040	12 x 6	22.0	691.2	1122
1362 041	14 x 6	23.2	806.4	1266
YKSXSftyżo-Nr 0,6/1 kV				
1362 042	7 x 10	19.9	672.0	1045
1362 043	10 x 10	24.8	960.0	1469
YKSXSftyżo-Nr 0,6/1 kV				
1362 044	7 x 16	22.6	1075.2	1487
1362 045	10 x 16	28.6	1536.0	2118

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## YKSXSektmyrzo-Nr 0,6/1 kV, YKSXSektmyn-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, COPPER TAPE SHIELDED AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSektmyrzo-Nr 0,6/1 kV** and **YKSXSektmyn-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSektmyrzo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSektmyrzo-Nr-O 0,6/1 kV** and **YKSXSektmyn-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSektmxnzo-Nr 0,6/1 kV** and **XnKSXSektmxn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSXSektmyńżo-Nr 0,6/1 kV, YKSXSektmyńżo-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	100 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	12 x cable diameter
in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 001	7 x 1	11.9	103.3	247
1761 002	10 x 1	14.2	141.6	329
1761 003	12 x 1	14.6	162.3	357
1761 004	14 x 1	15.4	184.0	398
1761 005	16 x 1	16.1	205.8	436
1761 006	19 x 1	16.8	237.8	482
1761 007	24 x 1	19.3	294.8	597
1761 008	30 x 1	20.2	356.1	680
1761 009	37 x 1	21.6	429.0	787
1761 010	48 x 1	24.4	545.2	979
1761 011	61 x 1	26.4	677.9	1168
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 012	7 x 1,5	12.7	140.5	297
1761 013	10 x 1,5	15.4	193.6	405
1761 014	12 x 1,5	15.8	224.0	442
1761 015	14 x 1,5	16.5	255.7	487
1761 016	16 x 1,5	17.2	287.1	534
1761 017	19 x 1,5	18.0	333.8	596
1761 018	24 x 1,5	20.7	415.8	740
1761 019	30 x 1,5	21.8	506.5	856
1761 020	37 x 1,5	23.5	613.4	1010
1761 021	48 x 1,5	26.5	783.9	1252
1761 022	61 x 1,5	28.8	979.7	1518
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 023	7 x 2,5	13.8	212.0	382
1761 024	10 x 2,5	16.9	295.7	528

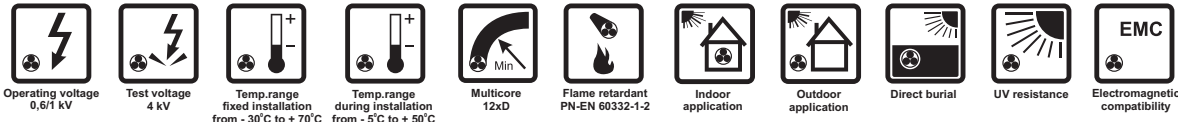
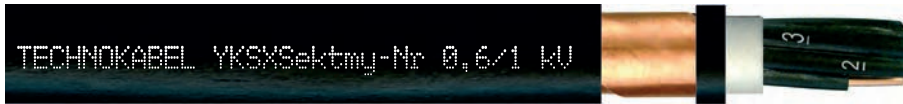
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 025	12 x 2,5	17.4	345.7	583
1761 026	14 x 2,5	18.2	396.8	648
1761 027	16 x 2,5	19.2	448.3	725
1761 028	19 x 2,5	20.1	523.6	814
1761 029	24 x 2,5	23.2	655.5	1016
1761 030	30 x 2,5	24.4	804.4	1186
1761 031	37 x 2,5	26.1	979.3	1395
1761 032	48 x 2,5	29.7	1256.8	1759
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 033	7 x 4	15.4	318.4	515
1761 034	10 x 4	18.8	447.4	709
1761 035	12 x 4	19.5	526.2	800
1761 036	14 x 4	20.4	606.5	893
1761 037	16 x 4	21.4	687.5	994
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 038	7 x 6	16.9	458.9	673
1761 039	10 x 6	21.0	647.5	946
1761 040	12 x 6	21.6	765.0	1063
1761 041	14 x 6	22.6	884.1	1193
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 042	7 x 10	19.5	737.4	993
1761 043	10 x 10	24.4	1044.4	1403
YKSXSektmyńżo-Nr 0,6/1 kV				
1761 044	7 x 16	22.2	1151.7	1427
1761 045	10 x 16	28.2	1635.0	2042

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKSXSektmyżo-Nr 0,6/1 kV, YKSXSektmy-Nr 0,6/1 kV

### XLPE INSULATED AND PVC SHEATHED, COPPER TAPE SHIELDED AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSXSektmyżo-Nr 0,6/1 kV** and **YKSXSektmy-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Improved electrical properties, small dimensions and weight compared to the cables with PVC insulation is achieved using cross-linked polyethylene insulation.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSXSektmyżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSXSektmy-Nr-O 0,6/1 kV** and **YKSXSektmyżo-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSektmxn-Nr 0,6/1 kV** and **XnKSXSektmxnżo-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSXSektmyżo-Nr 0,6/1 kV, YKSXSektmy-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage Uo/U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSektmyżo-Nr 0,6/1 kV				
1762 001	7 x 1	11.9	103.3	247
1762 002	10 x 1	14.2	141.6	329
1762 003	12 x 1	14.6	162.3	357
1762 004	14 x 1	15.4	184.0	398
1762 005	16 x 1	16.1	205.8	436
1762 006	19 x 1	16.8	237.8	482
1762 007	24 x 1	19.3	294.8	597
1762 008	30 x 1	20.2	356.1	680
1762 009	37 x 1	21.6	429.0	787
1762 010	48 x 1	24.4	545.2	979
1762 011	61 x 1	26.4	677.9	1168
YKSXSektmyżo-Nr 0,6/1 kV				
1762 012	7 x 1,5	12.7	140.5	297
1762 013	10 x 1,5	15.4	193.6	405
1762 014	12 x 1,5	15.8	224.0	442
1762 015	14 x 1,5	16.5	255.7	487
1762 016	16 x 1,5	17.2	287.1	534
1762 017	19 x 1,5	18.0	333.8	596
1762 018	24 x 1,5	20.7	415.8	740
1762 019	30 x 1,5	21.8	506.5	856
1762 020	37 x 1,5	23.5	613.4	1010
1762 021	48 x 1,5	26.5	783.9	1252
1762 022	61 x 1,5	28.8	979.7	1518
YKSXSektmyżo-Nr 0,6/1 kV				
1762 023	7 x 2,5	13.8	212.0	382
1762 024	10 x 2,5	16.9	295.7	528

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSXSektmyżo-Nr 0,6/1 kV				
1762 025	12 x 2,5	17.4	345.7	583
1762 026	14 x 2,5	18.2	396.8	648
1762 027	16 x 2,5	19.2	448.3	725
1762 028	19 x 2,5	20.1	523.6	814
1762 029	24 x 2,5	23.2	655.5	1016
1762 030	30 x 2,5	24.4	804.4	1186
1762 031	37 x 2,5	26.1	979.3	1395
1762 032	48 x 2,5	29.7	1256.8	1759
YKSXSektmyżo-Nr 0,6/1 kV				
1762 033	7 x 4	15.4	318.4	515
1762 034	10 x 4	18.8	447.4	709
1762 035	12 x 4	19.5	526.2	800
1762 036	14 x 4	20.4	606.5	893
1762 037	16 x 4	21.4	687.5	994
YKSXSektmyżo-Nr 0,6/1 kV				
1762 038	7 x 6	16.9	458.9	673
1762 039	10 x 6	21.0	647.5	946
1762 040	12 x 6	21.6	765.0	1063
1762 041	14 x 6	22.6	884.1	1193
YKSXSektmyżo-Nr 0,6/1 kV				
1762 042	7 x 10	19.5	737.4	993
1762 043	10 x 10	24.4	1044.4	1403
YKSXSektmyżo-Nr 0,6/1 kV				
1762 044	7 x 16	22.2	1151.7	1427
1762 045	10 x 16	28.2	1635.0	2042

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to changespecifications without prior notice.

## YnKSYżo-Nr 0,6/1 kV, YnKSY-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED CONTROL CABLES



### APPLICATIONS

**YnKSYżo-Nr 0,6/1 kV** and **YnKSY-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YnKSYżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- black PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**YKSYżo-Nr-O 0,6/1 kV** and **YKSY-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YKSwYżo-Nr 0,6/1 kV** and **YKSwY-Nr 0,6/1 kV** - cables with inner covering extruded directly on a cable core, recommended for direct earth burial.

**XnKSXSżo-Nr 0,6/1 kV** and **XnKSXS-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YnKSYżo-Nr 0,6/1 kV, YnKSY-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage Uo/U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	12 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YnKSYżo-Nr 0,6/1 kV				
0868 006	7 x 1	10.4	67.2	174
0868 009	10 x 1	12.8	96.0	237
0868 012	12 x 1	13.2	115.2	268
0868 007	14 x 1	13.8	134.4	302
0868 013	16 x 1	14.5	153.6	340
0868 014	19 x 1	15.3	182.4	386
0868 015	24 x 1	17.7	230.4	477
0868 016	30 x 1	18.7	288.0	571
0868 017	37 x 1	20.1	355.2	682
0868 018	48 x 1	23.1	460.8	874
0868 019	61 x 1	25.3	585.6	1086
YnKSYżo-Nr 0,6/1 kV				
0868 001	7 x 1,5	11.2	100.8	216
0868 003	10 x 1,5	13.8	144.0	296
0868 020	12 x 1,5	14.2	172.8	338
0868 005	14 x 1,5	14.9	201.6	383
0868 021	16 x 1,5	15.7	230.4	432
0868 010	19 x 1,5	16.5	273.6	493
0868 022	24 x 1,5	19.1	345.6	611
0868 023	30 x 1,5	20.2	432.0	736
0868 024	37 x 1,5	22.0	532.8	896
0868 025	48 x 1,5	25.3	691.2	1145
0868 026	61 x 1,5	27.5	878.4	1416
YnKSYżo-Nr 0,6/1 kV				
0868 027	7 x 2,5	12.3	168.0	291
0868 028	10 x 2,5	15.3	240.0	403

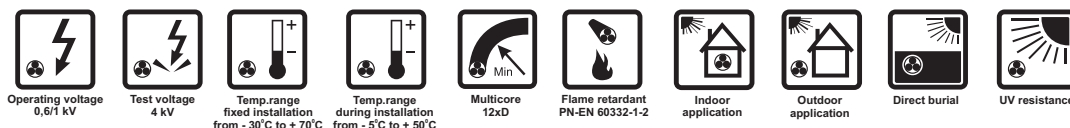
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0868 029	12 x 2,5	15.8	288.0	465
0868 030	14 x 2,5	16.6	336.0	529
0868 031	16 x 2,5	17.5	384.0	600
0868 011	19 x 2,5	18.4	456.0	688
0868 032	24 x 2,5	21.4	576.0	857
0868 033	30 x 2,5	22.9	720.0	1052
0868 034	37 x 2,5	24.6	888.0	1264
0868 035	48 x 2,5	28.5	1152.0	1639
YnKSYżo-Nr 0,6/1 kV				
0868 004	7 x 4	14.9	268.8	439
0868 036	10 x 4	18.8	384.0	612
0868 037	12 x 4	19.4	460.8	707
0868 038	14 x 4	20.4	537.6	808
0868 039	16 x 4	21.5	614.4	920
YnKSYżo-Nr 0,6/1 kV				
0868 040	7 x 6	16.4	403.2	585
0868 041	10 x 6	20.8	576.0	819
0868 042	12 x 6	21.4	691.2	950
0868 043	14 x 6	22.8	806.4	1102
YnKSYżo-Nr 0,6/1 kV				
0868 044	7 x 10	18.8	672.0	873
0868 045	10 x 10	24.2	960.0	1241
YnKSYżo-Nr 0,6/1 kV				
0868 046	7 x 16	21.5	1075.2	1279
0868 047	10 x 16	28.2	1536.0	1836

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKSYżo-Nr 0,6/1 kV, YKSY-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED CONTROL CABLES



## APPLICATIONS

**YKSYżo-Nr 0,6/1 kV** and **YKSY-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSYżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- black PVC cable sheath, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYżo-Nr-O 0,6/1 kV** and **YKSY-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YKSwYżo-Nr 0,6/1 kV** and **YKSwY-Nr 0,6/1 kV** - cables with inner covering extruded directly on a cable core, recommended for direct earth burial.

**XnKSXSżo-Nr 0.6/1 kV** and **XnKSXS-Nr 0.6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire or steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKSYżo-Nr 0,6/1 kV, YKSY-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage Uo/U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYżo-Nr 0,6/1 kV				
0354 019	7 x 1	10.4	67.2	174
0354 009	10 x 1	12.8	96.0	237
0354 021	12 x 1	13.2	115.2	268
0354 013	14 x 1	13.8	134.4	302
0354 028	16 x 1	14.5	153.6	340
0354 018	19 x 1	15.3	182.4	386
0354 029	24 x 1	17.7	230.4	477
0354 014	30 x 1	18.7	288.0	571
0354 015	37 x 1	20.1	355.2	682
0354 016	48 x 1	23.1	460.8	874
0354 030	61 x 1	25.3	585.6	1086
YKSYżo-Nr 0,6/1 kV				
0354 006	7 x 1,5	11.2	100.8	216
0354 012	10 x 1,5	13.8	144.0	296
0354 023	12 x 1,5	14.2	172.8	338
0354 008	14 x 1,5	14.9	201.6	383
0354 031	16 x 1,5	15.7	230.4	432
0354 005	19 x 1,5	16.5	273.6	493
0354 011	24 x 1,5	19.1	345.6	611
0354 032	30 x 1,5	20.2	432.0	736
0354 033	37 x 1,5	22.0	532.8	896
0354 034	48 x 1,5	25.3	691.2	1145
0354 035	61 x 1,5	27.5	878.4	1416
YKSYżo-Nr 0,6/1 kV				
0354 010	7 x 2,5	12.3	168.0	291
0354 001	10 x 2,5	15.3	240.0	403

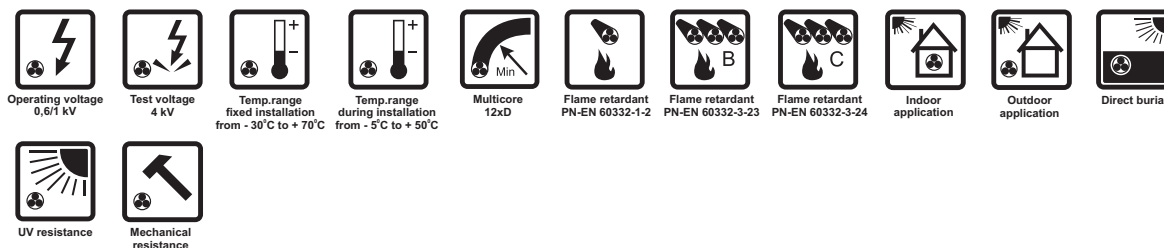
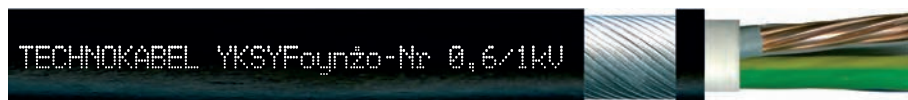
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYżo-Nr 0,6/1 kV				
0354 036	12 x 2,5	15.8	288.0	465
0354 002	14 x 2,5	16.6	336.0	529
0354 027	16 x 2,5	17.5	384.0	600
0354 003	19 x 2,5	18.4	456.0	688
0354 024	24 x 2,5	21.4	576.0	857
0354 004	30 x 2,5	22.9	720.0	1052
0354 037	37 x 2,5	24.6	888.0	1264
0354 038	48 x 2,5	28.5	1152.0	1639
YKSYżo-Nr 0,6/1 kV				
0354 007	7 x 4	14.9	268.8	439
0354 039	10 x 4	18.8	384.0	612
0354 040	12 x 4	19.4	460.8	707
0354 022	14 x 4	20.4	537.6	808
0354 041	16 x 4	21.5	614.4	920
YKSYżo-Nr 0,6/1 kV				
0354 020	7 x 6	16.4	403.2	585
0354 042	10 x 6	20.8	576.0	819
0354 043	12 x 6	21.4	691.2	950
0354 044	14 x 6	22.8	806.4	1102
YKSYżo-Nr 0,6/1 kV				
0354 045	7 x 10	18.8	672.0	873
0354 046	10 x 10	24.2	960.0	1241
YKSYżo-Nr 0,6/1 kV				
0354 047	7 x 16	21.5	1075.2	1279
0354 048	10 x 16	28.2	1536.0	1836

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## YKSYFoyńzo-Nr 0,6/1 kV, YKSYFoyń-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED, STEEL WIRE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSYFoyńzo-Nr 0,6/1 kV** and **YKSYFoyń-Nr 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSYFoyńzo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYFoyńzo-Nr-O 0,6/1 kV** and **YKSYFoyń-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSfoynzo-Nr 0,6/1 kV** and **XnKSXSfoyn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSYFoyńżo-Nr 0,6/1 kV, YKSYFoyń-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	15	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYFoyńżo-Nr 0,6/1 kV				
1757 001	7 x 1	13.6	67.2	420
1757 002	10 x 1	16.2	96.0	552
1757 003	12 x 1	16.6	115.2	593
1757 004	14 x 1	17.2	134.4	640
1757 005	16 x 1	17.9	153.6	692
1757 006	19 x 1	18.7	182.4	758
1757 007	24 x 1	22.0	230.4	1064
1757 008	30 x 1	23.2	288.0	1193
1757 009	37 x 1	24.6	355.2	1356
1757 010	48 x 1	27.6	460.8	1635
1757 011	61 x 1	29.6	585.6	1903
YKSYFoyńżo-Nr 0,6/1 kV				
1757 012	7 x 1,5	14.4	100.8	484
1757 013	10 x 1,5	17.2	144.0	641
1757 014	12 x 1,5	17.6	172.8	687
1757 015	14 x 1,5	18.3	201.6	745
1757 016	16 x 1,5	19.3	230.4	825
1757 017	19 x 1,5	20.8	273.6	1037
1757 018	24 x 1,5	23.6	345.6	1254
1757 019	30 x 1,5	24.7	432.0	1414
1757 020	37 x 1,5	26.3	532.8	1616
1757 021	48 x 1,5	29.6	691.2	1968
1757 022	61 x 1,5	32.6	878.4	2499
YKSYFoyńżo-Nr 0,6/1 kV				
1757 023	7 x 2,5	15.7	168.0	597
1757 024	10 x 2,5	18.7	240.0	789

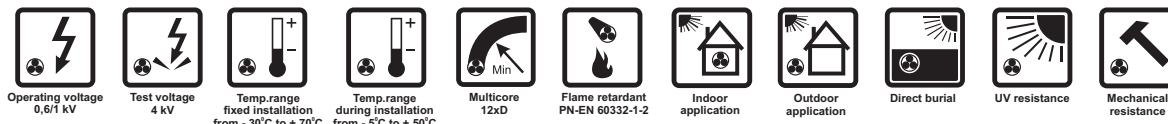
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYFoyńżo-Nr 0,6/1 kV				
1757 025	12 x 2,5	19.4	288.0	864
1757 026	14 x 2,5	20.9	336.0	1079
1757 027	16 x 2,5	21.8	384.0	1177
1757 028	19 x 2,5	22.7	456.0	1302
1757 029	24 x 2,5	25.9	576.0	1586
1757 030	30 x 2,5	27.4	720.0	1820
1757 031	37 x 2,5	29.1	888.0	2088
1757 032	48 x 2,5	33.4	1152.0	2739
YKSYFoyńżo-Nr 0,6/1 kV				
1757 033	7 x 4	18.3	268.8	811
1757 034	10 x 4	23.3	384.0	1275
1757 035	12 x 4	23.9	460.8	1381
1757 036	14 x 4	24.9	537.6	1509
1757 037	16 x 4	26.0	614.4	1660
YKSYFoyńżo-Nr 0,6/1 kV				
1757 038	7 x 6	20.7	403.2	1145
1757 039	10 x 6	25.3	576.0	1552
1757 040	12 x 6	25.9	691.2	1703
1757 041	14 x 6	27.3	806.4	1896
YKSYFoyńżo-Nr 0,6/1 kV				
1757 042	7 x 10	23.3	672.0	1537
1757 043	10 x 10	28.7	960.0	2106
YKSYFoyńżo-Nr 0,6/1 kV				
1757 044	7 x 16	26.0	1075.2	2042
1757 045	10 x 16	33.1	1536.0	3026

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKSYFoyžo-Nr 0,6/1 kV, YKSYFoy-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED, STEEL WIRE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSYFoyžo-Nr 0,6/1 kV** and **YKSYFoy-Nr 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSYFoyžo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- PVC cable sheath,
- galvanized steel wire armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYFoyžo-Nr-O 0,6/1 kV** and **YKSYFoy-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSFoxnžo-Nr 0,6/1 kV** and **XnKSXSFoxn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSYFoyzo-Nr 0,6/1 kV, YKSYFoy-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

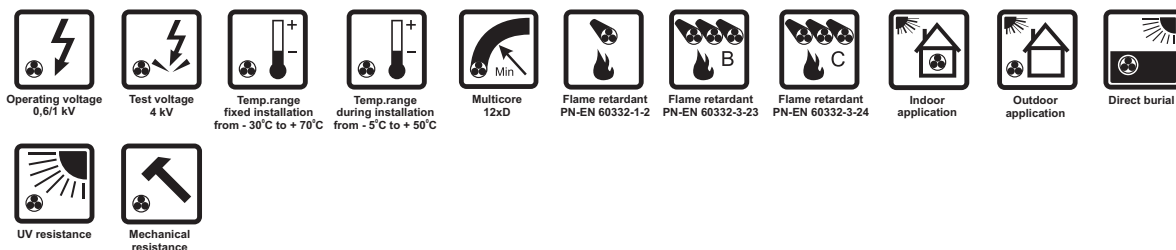
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYFoyzo-Nr 0,6/1 kV				
1758 002	7 x 1	13.6	67.2	420
1758 003	10 x 1	16.2	96.0	552
1758 001	12 x 1	16.6	115.2	593
1758 004	14 x 1	17.2	134.4	640
1758 005	16 x 1	17.9	153.6	692
1758 006	19 x 1	18.7	182.4	758
1758 007	24 x 1	22.0	230.4	1064
1758 008	30 x 1	23.2	288.0	1193
1758 009	37 x 1	24.6	355.2	1356
1758 010	48 x 1	27.6	460.8	1635
1758 011	61 x 1	29.6	585.6	1903
YKSYFoyzo-Nr 0,6/1 kV				
1758 012	7 x 1,5	14.4	100.8	484
1758 013	10 x 1,5	17.2	144.0	641
1758 014	12 x 1,5	17.6	172.8	687
1758 015	14 x 1,5	18.3	201.6	745
1758 016	16 x 1,5	19.3	230.4	825
1758 017	19 x 1,5	20.8	273.6	1037
1758 018	24 x 1,5	23.6	345.6	1254
1758 019	30 x 1,5	24.7	432.0	1414
1758 020	37 x 1,5	26.3	532.8	1616
1758 021	48 x 1,5	29.6	691.2	1968
1758 022	61 x 1,5	32.6	878.4	2499
YKSYFoyzo-Nr 0,6/1 kV				
1758 023	7 x 2,5	15.7	168.0	597
1758 024	10 x 2,5	18.7	240.0	789

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYFoyzo-Nr 0,6/1 kV				
1758 025	12 x 2,5	19.4	288.0	864
1758 026	14 x 2,5	20.9	336.0	1079
1758 027	16 x 2,5	21.8	384.0	1177
1758 028	19 x 2,5	22.7	456.0	1302
1758 029	24 x 2,5	25.9	576.0	1586
1758 030	30 x 2,5	27.4	720.0	1820
1758 031	37 x 2,5	29.1	888.0	2088
1758 032	48 x 2,5	33.4	1152.0	2739
YKSYFoyzo-Nr 0,6/1 kV				
1758 033	7 x 4	18.3	268.8	811
1758 034	10 x 4	23.3	384.0	1275
1758 035	12 x 4	23.9	460.8	1381
1758 036	14 x 4	24.9	537.6	1509
1758 037	16 x 4	26.0	614.4	1660
YKSYFoyzo-Nr 0,6/1 kV				
1758 038	7 x 6	20.7	403.2	1145
1758 039	10 x 6	25.3	576.0	1552
1758 040	12 x 6	25.9	691.2	1703
1758 041	14 x 6	27.3	806.4	1896
YKSYFoyzo-Nr 0,6/1 kV				
1758 042	7 x 10	23.3	672.0	1537
1758 043	10 x 10	28.7	960.0	2106
YKSYFoyzo-Nr 0,6/1 kV				
1758 044	7 x 16	26.0	1075.2	2042
1758 045	10 x 16	33.1	1536.0	3026

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKSYFtyńżo 0,6/1 kV, YKSYFtyń 0,6/1 kV

### PVC INSULATED AND SHEATHED, STEEL TAPE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSYFtyńżo 0,6/1 kV** and **YKSYFtyń 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- PVC insulation, colour code insulation in each layer:
  - brown conductor as a counter, blue directional conductor and other conductors of any colour with the exception of green, yellow, brown and blue,
  - YKSYFtyńżo 0,6/1 kV** green-yellow protective conductor is positioned as a counter conductor in the outer layer instead of conductor of brown,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYFtyńżo-O 0,6/1 kV** and **YKSYFtyń-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSftxnżo 0,6/1 kV** and **XnKSXSftxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSYFtynżo 0,6/1 kV, YKSYFtyn 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	12 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

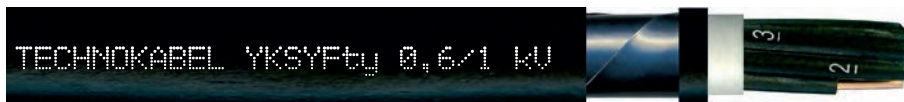
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYFtynżo 0,6/1 kV				
1548 004	7 x 1	12.6	67.2	303
1548 005	10 x 1	15.0	96.0	402
1548 006	12 x 1	15.6	115.2	444
1548 007	14 x 1	16.2	134.4	484
1548 008	16 x 1	16.9	153.6	530
1548 009	19 x 1	17.7	182.4	587
1548 010	24 x 1	20.3	230.4	725
1548 011	30 x 1	21.3	288.0	829
1548 012	37 x 1	22.7	355.2	959
1548 013	48 x 1	25.7	460.8	1192
1548 014	61 x 1	27.9	585.6	1434
YKSYFtynżo 0,6/1 kV				
1548 001	7 x 1,5	13.4	100.8	357
1548 015	10 x 1,5	16.2	144.0	485
1548 016	12 x 1,5	16.6	172.8	529
1548 002	14 x 1,5	17.3	201.6	581
1548 017	16 x 1,5	18.1	230.4	641
1548 018	19 x 1,5	18.9	273.6	712
1548 019	24 x 1,5	21.7	345.6	881
1548 020	30 x 1,5	23.0	432.0	1029
1548 021	37 x 1,5	24.6	532.8	1199
1548 022	48 x 1,5	27.9	691.2	1499
1548 023	61 x 1,5	30.1	878.4	1800
YKSYFtynżo 0,6/1 kV				
1548 003	7 x 2,5	14.5	168.0	449
1548 024	10 x 2,5	17.7	240.0	617

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYFtynżo 0,6/1 kV				
1548 025	12 x 2,5	18.2	288.0	681
1548 026	14 x 2,5	19.2	336.0	764
1548 027	16 x 2,5	20.1	384.0	847
1548 028	19 x 2,5	21.0	456.0	947
1548 029	24 x 2,5	24.2	576.0	1178
1548 030	30 x 2,5	25.5	720.0	1375
1548 031	37 x 2,5	27.4	888.0	1626
1548 032	48 x 2,5	31.1	1152.0	2043
YKSYFtynżo 0,6/1 kV				
1548 033	7 x 4	17.3	268.8	647
1548 034	10 x 4	21.4	384.0	901
1548 035	12 x 4	22.0	460.8	1000
1548 036	14 x 4	23.2	537.6	1125
1548 037	16 x 4	24.3	614.4	1252
YKSYFtynżo 0,6/1 kV				
1548 038	7 x 6	18.8	403.2	820
1548 039	10 x 6	23.6	576.0	1160
1548 040	12 x 6	24.2	691.2	1295
1548 041	14 x 6	25.4	806.4	1451
YKSYFtynżo 0,6/1 kV				
1548 042	7 x 10	21.4	672.0	1162
1548 043	10 x 10	27.0	960.0	1652
YKSYFtynżo 0,6/1 kV				
1548 044	7 x 16	24.3	1075.2	1634
1548 045	10 x 16	30.8	1536.0	2329

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKSYFtyżo 0,6/1 kV, YKSYFty 0,6/1 kV

### PVC INSULATED AND SHEATHED, STEEL TAPE ARMoured AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSYFtyżo 0,6/1 kV** and **YKSYFty 0,6/1 kV** armoured control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- PVC insulation, colour code insulation in each layer:
  - brown conductor as a counter, blue directional conductor and other conductors of any colour with the exception of green, yellow, brown and blue,
  - YKSYFtyżo 0,6 / 1 kV** green-yellow protective conductor is positioned as a counter conductor in the outer layer instead of conductor of brown,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- galvanized steel tape armour,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYFtyżo-O 0,6/1 kV** and **YKSYFty-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSftxnżo 0,6/1 kV** and **XnKSXSftxn 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSYFtyżo 0,6/1 kV, YKSYFty 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
YKSYFtyżo Q6/1 kV				
1373 023	7 x 1	12.6	67.2	303
1373 022	10 x 1	15.0	96.0	402
1373 042	12 x 1	15.6	115.2	444
1373 025	14 x 1	16.2	134.4	484
1373 043	16 x 1	16.9	153.6	530
1373 024	19 x 1	17.7	182.4	587
1373 029	24 x 1	20.3	230.4	725
1373 014	30 x 1	21.3	288.0	829
1373 041	37 x 1	22.7	355.2	959
1373 030	48 x 1	25.7	460.8	1192
1373 009	61 x 1	27.9	585.6	1434
YKSYFtyżo Q6/1 kV				
1373 008	7 x 1,5	13.4	100.8	357
1373 003	10 x 1,5	16.2	144.0	485
1373 032	12 x 1,5	16.6	172.8	529
1373 005	14 x 1,5	17.3	201.6	581
1373 044	16 x 1,5	18.1	230.4	641
1373 006	19 x 1,5	18.9	273.6	712
1373 007	24 x 1,5	21.7	345.6	881
1373 012	30 x 1,5	23.0	432.0	1029
1373 015	37 x 1,5	24.6	532.8	1199
1373 019	48 x 1,5	27.9	691.2	1499
1373 045	61 x 1,5	30.1	878.4	1800
YKSYFtyżo Q6/1 kV				
1373 001	7 x 2,5	14.5	168.0	449
1373 016	10 x 2,5	17.7	240.0	617

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
YKSYFtyżo Q6/1 kV				
1373 031	12 x 2,5	18.2	288.0	681
1373 020	14 x 2,5	19.2	336.0	764
1373 046	16 x 2,5	20.1	384.0	847
1373 027	19 x 2,5	21.0	456.0	947
1373 017	24 x 2,5	24.2	576.0	1178
1373 028	30 x 2,5	25.5	720.0	1375
1373 018	37 x 2,5	27.4	888.0	1626
1373 047	48 x 2,5	31.1	1152.0	2043
YKSYFtyżo Q6/1 kV				
1373 010	7 x 4	17.3	268.8	647
1373 011	10 x 4	21.4	384.0	901
1373 048	12 x 4	22.0	460.8	1000
1373 013	14 x 4	23.2	537.6	1125
1373 034	16 x 4	24.3	614.4	1252
YKSYFtyżo Q6/1 kV				
1373 002	7 x 6	18.8	403.2	820
1373 004	10 x 6	23.6	576.0	1160
1373 049	12 x 6	24.2	691.2	1295
1373 033	14 x 6	25.4	806.4	1451
YKSYFtyżo Q6/1 kV				
1373 035	7 x 10	21.4	672.0	1162
1373 021	10 x 10	27.0	960.0	1652
YKSYFtyżo Q6/1 kV				
1373 037	7 x 16	24.3	1075.2	1634
1373 050	10 x 16	30.8	1536.0	2329

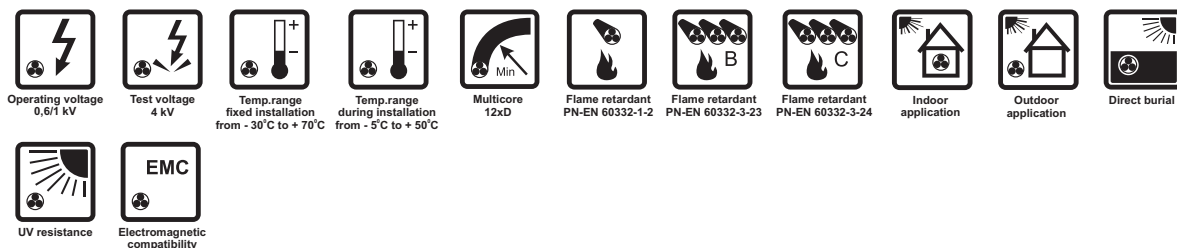
Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice



## YKSYektmyrżo-Nr 0,6/1 kV, YKSYektmyn-Nr 0,6/1 kV

PVC INSULATED AND SHEATHED, COPPER TAPE SHIELDED AND PVC OVERSHEATHED CONTROL CABLES



### APPLICATIONS

**YKSYektmyrżo-Nr 0,6/1 kV** and **YKSYektmyn-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSYektmyrżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

### AVAILABLE UPON REQUEST

**YKSYektmyrżo-Nr-O 0,6/1 kV** and **YKSYektmyn-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSektmyrżo-Nr 0,6/1 kV** and **XnKSXSektmyn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSYektm ynżo-Nr 0,6/1 kV, YKSYektm yn-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>o/U</sub>	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	during installation	from - 5 to + 50°C
Conductor temperature limit		Minimum bending radius	12 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90403, -HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYektm ynżo-Nr 0,6/1 kV				
1759 001	7 x 1	12.2	104.6	272
1759 002	10 x 1	14.6	143.1	364
1759 003	12 x 1	15.0	163.8	396
1759 004	14 x 1	15.8	185.6	443
1759 005	16 x 1	16.5	207.7	487
1759 006	19 x 1	17.3	239.7	541
1759 007	24 x 1	19.9	297.5	672
1759 008	30 x 1	20.9	359.1	773
1759 009	37 x 1	22.3	431.9	898
1759 010	48 x 1	25.3	548.9	1123
1759 011	61 x 1	27.5	681.7	1359
YKSYektm yn-Nr 0,6/1 kV				
1759 012	7 x 1,5	13.0	141.7	324
1759 013	10 x 1,5	15.8	195.2	444
1759 014	12 x 1,5	16.2	225.8	486
1759 015	14 x 1,5	16.9	257.3	537
1759 016	16 x 1,5	17.7	289.2	594
1759 017	19 x 1,5	18.5	335.6	662
1759 018	24 x 1,5	21.3	418.2	824
1759 019	30 x 1,5	22.4	509.2	957
1759 020	37 x 1,5	24.2	616.2	1134
1759 021	48 x 1,5	27.5	787.3	1425
1759 022	61 x 1,5	29.7	983.2	1718
YKSYektm yn-Nr 0,6/1 kV				
1759 023	7 x 2,5	14.1	213.0	412
1759 024	10 x 2,5	17.3	297.3	572

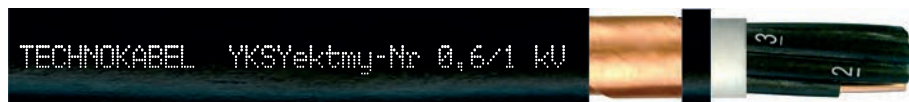
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYektm ynżo-Nr 0,6/1 kV				
1759 025	12 x 2,5	17.8	347.2	634
1759 026	14 x 2,5	18.6	398.7	705
1759 027	16 x 2,5	19.7	450.2	795
1759 028	19 x 2,5	20.6	525.8	892
1759 029	24 x 2,5	23.8	658.0	1114
1759 030	30 x 2,5	25.1	807.4	1307
1759 031	37 x 2,5	27.0	982.0	1553
1759 032	48 x 2,5	30.7	1260.1	1960
YKSYektm yn-Nr 0,6/1 kV				
1759 033	7 x 4	16.9	324.5	603
1759 034	10 x 4	21.0	455.5	845
1759 035	12 x 4	21.6	534.6	942
1759 036	14 x 4	22.6	615.3	1052
1759 037	16 x 4	23.9	696.8	1188
YKSYektm ynżo-Nr 0,6/1 kV				
1759 038	7 x 6	18.4	464.7	770
1759 039	10 x 6	23.2	655.5	1098
1759 040	12 x 6	23.8	773.2	1230
1759 041	14 x 6	25.0	893.1	1383
YKSYektm yn-Nr 0,6/1 kV				
1759 042	7 x 10	21.0	743.5	1106
1759 043	10 x 10	26.4	1052.3	1566
YKSYektm yn-Nr 0,6/1 kV				
1759 044	7 x 16	23.9	1157.6	1569
1759 045	10 x 16	30.2	1642.9	2231

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YKSYektmyżo-Nr 0,6/1 kV, YKSYektmy-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED, COPPER TAPE SHIELDED AND PVC OVERSHEATHED CONTROL CABLES



## APPLICATIONS

**YKSYektmyżo-Nr 0,6/1 kV** and **YKSYektmy-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Copper tape overall shield prevents emission of interferences produced in the cables and protects the cables against external electromagnetic interferences.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YKSYektmyżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in a cable core,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYektmyżo-Nr-O 0,6/1 kV** and **YKSYektmy-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSektmxnżo-Nr 0,6/1 kV** and **XnKSXSektmxn-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YKSYektmyżo-Nr 0,6/1 kV, YKSYektmy-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

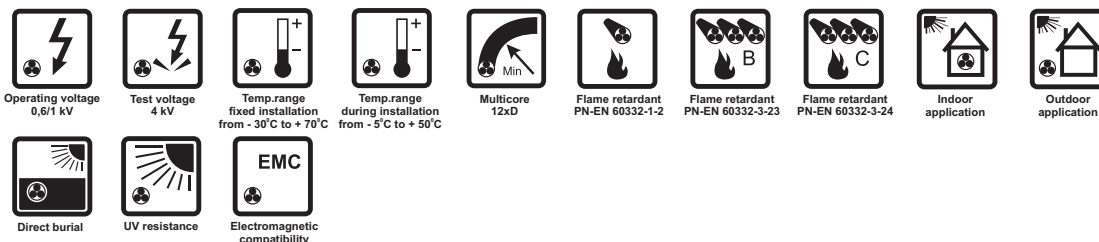
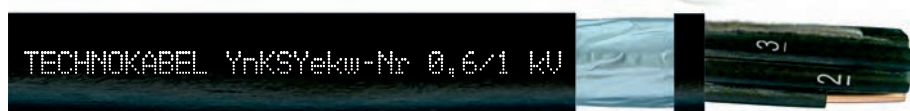
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYektmyżo-Nr 0,6/1 kV				
0851 005	7 x 1	12.2	104.6	272
0851 006	10 x 1	14.6	143.1	364
0851 007	12 x 1	15.0	163.8	396
0851 008	14 x 1	15.8	185.6	443
0851 009	16 x 1	16.5	207.7	487
0851 010	19 x 1	17.3	239.7	541
0851 011	24 x 1	19.9	297.5	672
0851 012	30 x 1	20.9	359.1	773
0851 013	37 x 1	22.3	431.9	898
0851 014	48 x 1	25.3	548.9	1123
0851 015	61 x 1	27.5	681.7	1359
YKSYektmyżo-Nr 0,6/1 kV				
0851 001	7 x 1,5	13.0	141.7	324
0851 004	10 x 1,5	15.8	195.2	444
0851 003	12 x 1,5	16.2	225.8	486
0851 016	14 x 1,5	16.9	257.3	537
0851 017	16 x 1,5	17.7	289.2	594
0851 018	19 x 1,5	18.5	335.6	662
0851 019	24 x 1,5	21.3	418.2	824
0851 020	30 x 1,5	22.4	509.2	957
0851 021	37 x 1,5	24.2	616.2	1134
0851 022	48 x 1,5	27.5	787.3	1425
0851 023	61 x 1,5	29.7	983.2	1718
YKSYektmyżo-Nr 0,6/1 kV				
0851 002	7 x 2,5	14.1	213.0	412
0851 024	10 x 2,5	17.3	297.3	572

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYektmyżo-Nr 0,6/1 kV				
0851 025	12 x 2,5	17.8	347.2	634
0851 026	14 x 2,5	18.6	398.7	705
0851 027	16 x 2,5	19.7	450.2	795
0851 028	19 x 2,5	20.6	525.8	892
0851 029	24 x 2,5	23.8	658.0	1114
0851 030	30 x 2,5	25.1	807.4	1307
0851 031	37 x 2,5	27.0	982.0	1553
0851 032	48 x 2,5	30.7	1260.1	1960
YKSYektmyżo-Nr 0,6/1 kV				
0851 033	7 x 4	16.9	324.5	603
0851 034	10 x 4	21.0	455.5	845
0851 035	12 x 4	21.6	534.6	942
0851 036	14 x 4	22.6	615.3	1052
0851 037	16 x 4	23.9	696.8	1188
YKSYektmyżo-Nr 0,6/1 kV				
0851 038	7 x 6	18.4	464.7	770
0851 039	10 x 6	23.2	655.5	1098
0851 040	12 x 6	23.8	773.2	1230
0851 041	14 x 6	25.0	893.1	1383
YKSYektmyżo-Nr 0,6/1 kV				
0851 042	7 x 10	21.0	743.5	1106
0851 043	10 x 10	26.4	1052.3	1566
YKSYektmyżo-Nr 0,6/1 kV				
0851 044	7 x 16	23.9	1157.6	1569
0851 045	10 x 16	30.2	1642.9	2231

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKSYekwżo-Nr 0,6/1 kV, YnKSYekw-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED, TAPE SHIELDED CONTROL CABLES



### APPLICATIONS

**YnKSYekwżo-Nr 0,6/1 kV** and **YnKSYekw-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

The cables are protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cables.

The cable sheath is then made of special self-extinguishing PVC of reduced combustibility and pass combustibility test according to EN 60332-3 standard.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YnKSYekwżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper drain wire,
- black PVC cable covering, other colours also available.

### AVAILABLE UPON REQUEST

**YKSYekwżo-Nr-O 0,6/1 kV** and **YKSYekw-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSekwżo-Nr 0,6/1 kV** and **XnKSXSekw-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YnKSYekwżo-Nr 0,6/1 kV, YnKSYekw-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1.5	2.5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage Uo/U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 ≥ 25 mm <sup>2</sup> PN-EN 60332-3-23, IEC 60332-3-23 (cat. B) < 25 mm <sup>2</sup> PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	IEC 60502-1, PN-93/E-90403. PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YnKSYekwżo-Nr 0,6/1 kV				
1097 004	7 x 1	10.5	72.0	181
1097 001	10 x 1	12.9	100.8	244
1097 013	12 x 1	13.3	120.0	275
1097 003	14 x 1	13.9	139.2	309
1097 005	16 x 1	14.6	158.4	347
1097 012	19 x 1	15.4	187.2	393
1097 014	24 x 1	17.8	235.2	484
1097 002	30 x 1	18.8	292.8	578
1097 015	37 x 1	20.2	360.0	689
1097 016	48 x 1	23.2	465.6	881
1097 017	61 x 1	25.4	590.4	1093
YnKSYekwżo-Nr 0,6/1 kV				
1097 008	7 x 1,5	11.3	108.0	226
1097 009	10 x 1,5	13.9	151.2	306
1097 018	12 x 1,5	14.3	180.0	348
1097 006	14 x 1,5	15.0	208.8	393
1097 019	16 x 1,5	15.8	237.6	442
1097 011	19 x 1,5	16.6	280.8	503
1097 010	24 x 1,5	19.2	352.8	621
1097 007	30 x 1,5	20.3	439.2	746
1097 020	37 x 1,5	22.1	540.0	906
1097 021	48 x 1,5	25.4	698.4	1155
1097 022	61 x 1,5	27.6	885.6	1426
YnKSYekwżo-Nr 0,6/1 kV				
1097 023	7 x 2,5	12.4	175.2	301
1097 024	10 x 2,5	15.4	251.2	413

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YnKSYekwżo-Nr 0,6/1 kV				
1097 025	12 x 2,5	15.9	295.2	475
1097 026	14 x 2,5	16.7	343.2	539
1097 027	16 x 2,5	17.6	391.2	610
1097 028	19 x 2,5	18.5	463.2	698
1097 029	24 x 2,5	21.5	583.2	867
1097 030	30 x 2,5	23.0	727.2	1062
1097 031	37 x 2,5	24.7	895.2	1274
1097 032	48 x 2,5	28.6	1159.2	1649
YnKSYekwżo-Nr 0,6/1 kV				
1097 033	7 x 4	15.0	276.0	449
1097 034	10 x 4	18.9	391.2	622
1097 035	12 x 4	19.5	468.0	717
1097 036	14 x 4	20.5	544.8	818
1097 037	16 x 4	21.6	621.6	930
YnKSYekwżo-Nr 0,6/1 kV				
1097 038	7 x 6	16.5	410.4	595
1097 039	10 x 6	20.9	583.2	829
1097 040	12 x 6	21.5	698.4	970
1097 041	14 x 6	22.9	813.6	1112
YnKSYekwżo-Nr 0,6/1 kV				
1097 042	7 x 10	18.9	679.2	883
1097 043	10 x 10	24.3	967.2	1251
YnKSYekwżo-Nr 0,6/1 kV				
1097 044	7 x 16	21.6	1082.4	1289
1097 045	10 x 16	28.3	1543.2	1846

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKSYekwżo-Nr 0,6/1 kV, YKSYekw-Nr 0,6/1 kV

### PVC INSULATED AND SHEATHED, TAPE SHIELDED CONTROL CABLES



## APPLICATIONS

**YKSYekwżo-Nr 0,6/1 kV** and **YKSYekw-Nr 0,6/1 kV** shielded control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

The cables are protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cables.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black PVC insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **YnKSYekwżo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper drain wire,
- black PVC cable covering, other colours also available.

## AVAILABLE UPON REQUEST

**YKSYekwżo-Nr-O 0,6/1 kV** and **YKSYekw-Nr-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**XnKSXSekwżo-Nr 0,6/1 kV** and **XnKSXSekw-Nr 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKSYekwżo-Nr 0,6/1 kV, YKSYekw-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>0</sub> /U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYekwżo-Nr 0,6/1 kV				
0352 007	7 x 1	10.5	72.0	181
0352 008	10 x 1	12.9	100.8	244
0352 009	12 x 1	13.3	120.0	275
0352 002	14 x 1	13.9	139.2	309
0352 010	16 x 1	14.6	158.4	347
0352 011	19 x 1	15.4	187.2	393
0352 003	24 x 1	17.8	235.2	484
0352 012	30 x 1	18.8	292.8	578
0352 013	37 x 1	20.2	360.0	689
0352 014	48 x 1	23.2	465.6	881
0352 015	61 x 1	25.4	590.4	1093
YKSYekwżo-Nr 0,6/1 kV				
0352 001	7 x 1,5	11.3	108.0	226
0352 016	10 x 1,5	13.9	151.2	306
0352 017	12 x 1,5	14.3	180.0	348
0352 004	14 x 1,5	15.0	208.8	393
0352 018	16 x 1,5	15.8	237.6	442
0352 019	19 x 1,5	16.6	280.8	503
0352 020	24 x 1,5	19.2	352.8	621
0352 005	30 x 1,5	20.3	439.2	746
0352 006	37 x 1,5	22.1	540.0	906
0352 021	48 x 1,5	25.4	698.4	1155
0352 022	61 x 1,5	27.6	885.6	1426
YKSYekwżo-Nr 0,6/1 kV				
0352 023	7 x 2,5	12.4	175.2	301
0352 024	10 x 2,5	15.4	251.2	413

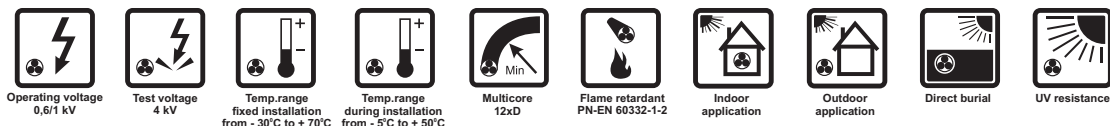
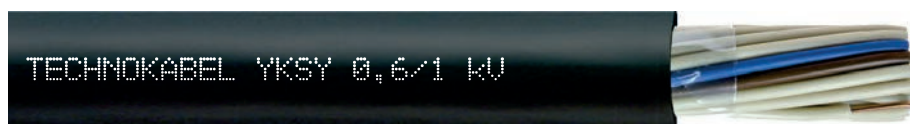
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYekwżo-Nr 0,6/1 kV				
0352 025	12 x 2,5	15.9	295.2	475
0352 026	14 x 2,5	16.7	343.2	539
0352 027	16 x 2,5	17.6	391.2	610
0352 028	19 x 2,5	18.5	463.2	698
0352 029	24 x 2,5	21.5	583.2	867
0352 030	30 x 2,5	23.0	727.2	1062
0352 031	37 x 2,5	24.7	895.2	1274
0352 032	48 x 2,5	28.6	1159.2	1649
YKSYekwżo-Nr 0,6/1 kV				
0352 033	7 x 4	15.0	276.0	449
0352 034	10 x 4	18.9	391.2	622
0352 035	12 x 4	19.5	468.0	717
0352 036	14 x 4	20.5	544.8	818
0352 037	16 x 4	21.6	621.6	930
YKSYekwżo-Nr 0,6/1 kV				
0352 038	7 x 6	16.5	410.4	595
0352 039	10 x 6	20.9	583.2	829
0352 040	12 x 6	21.5	698.4	970
0352 041	14 x 6	22.9	813.6	1112
YKSYekwżo-Nr 0,6/1 kV				
0352 042	7 x 10	18.9	679.2	883
0352 043	10 x 10	24.3	967.2	1251
YKSYekwżo-Nr 0,6/1 kV				
0352 044	7 x 16	21.6	1082.4	1289
0352 045	10 x 16	28.3	1543.2	1846

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## YKSYżo 0,6/1 kV, YKSY 0,6/1 kV

### PVC INSULATED AND SHEATHED CONTROL CABLES



### APPLICATIONS

**YKSYżo 0,6/1 kV** and **YKSY 0,6/1 kV** control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- PVC insulation, colour code insulation in each layer:  
brown conductor as a counter, blue directional conductor and other conductors of any colour with the exception of green, yellow, brown and blue,  
**YKSYżo 0,6/1 kV** green-yellow protective conductor is positioned as a counter conductor in the outer layer instead of conductor of brown,
- insulated conductors laid-up in a cable core,
- cable core wrapped in polyester tape,
- black PVC cable sheath, other colours also available.

### AVAILABLE UPON REQUEST

**YKSYżo-O 0,6/1 kV** and **YKSY-O 0,6/1 kV** - cables designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled. The cable sheath is then made of special PVC compound meeting oil resistance requirements of Polish standard PN-EN 60811-404.

**YnKSYżo 0,6/1 kV** and **YnKSY 0,6/1 kV** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.

**YKSwYżo 0,6/1 kV** and **YKSwY 0,6/1 kV** - cables with inner covering extruded directly on a cable core, recommended for direct earth burial.

**XnKSXSżo 0,6/1 kV** and **XnKSXS 0,6/1 kV** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**Steel wire** or **steel tape armoured cables** as above applied in locations where enhanced protection against mechanical damages is required.

## YKSYżo 0,6/1 kV, YKSY 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage Uo/U	0.6/1 kV	Temperature range during operation	from - 30 to + 70°C
Voltage test	4 kV rms	Temperature range during installation	from - 5 to + 50°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	IEC 60502-1, PN-93/E-90403, PN-HD 603 S1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
YKSYżo 0,6/1 kV				
0353 002	7 x 1	10.4	67.2	174
0353 024	10 x 1	12.8	96.0	237
0353 047	12 x 1	13.2	115.2	268
0353 015	14 x 1	13.8	134.4	302
0353 034	16 x 1	14.5	153.6	340
0353 008	19 x 1	15.3	182.4	386
0353 028	24 x 1	17.7	230.4	477
0353 025	30 x 1	18.7	288.0	571
0353 033	37 x 1	20.1	355.2	682
0353 027	48 x 1	23.1	460.8	874
0353 016	61 x 1	25.3	585.6	1086
YKSYżo 0,6/1 kV				
0353 003	7 x 1,5	11.2	100.8	216
0353 012	10 x 1,5	13.8	144.0	296
0353 037	12 x 1,5	14.2	172.8	338
0353 005	14 x 1,5	14.9	201.6	383
0353 038	16 x 1,5	15.7	230.4	432
0353 009	19 x 1,5	16.5	273.6	493
0353 006	24 x 1,5	19.1	345.6	611
0353 013	30 x 1,5	20.2	432.0	736
0353 020	37 x 1,5	22.0	532.8	896
0353 018	48 x 1,5	25.3	691.2	1145
0353 046	61 x 1,5	27.5	878.4	1416
YKSYżo 0,6/1 kV				
0353 001	7 x 2,5	12.3	168.0	291
0353 004	10 x 2,5	15.3	240.0	403

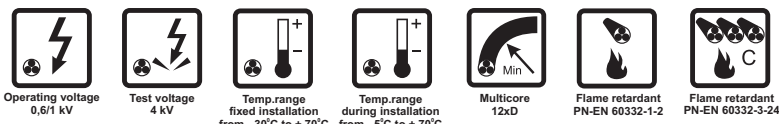
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0353 036	12 x 2,5	15.8	288.0	465
0353 011	14 x 2,5	16.6	336.0	529
0353 042	16 x 2,5	17.5	384.0	600
0353 010	19 x 2,5	18.4	456.0	688
0353 029	24 x 2,5	21.4	576.0	857
0353 032	30 x 2,5	22.9	720.0	1052
0353 021	37 x 2,5	24.6	888.0	1264
0353 051	48 x 2,5	28.5	1152.0	1639
YKSYżo 0,6/1 kV				
0353 014	7 x 4	14.9	268.8	439
0353 030	10 x 4	18.8	384.0	612
0353 049	12 x 4	19.4	460.8	707
0353 045	14 x 4	20.4	537.6	808
0353 041	16 x 4	21.5	614.4	920
YKSYżo 0,6/1 kV				
0353 022	7 x 6	16.4	403.2	585
0353 023	10 x 6	20.8	576.0	819
0353 050	12 x 6	21.4	691.2	950
0353 044	14 x 6	22.8	806.4	1102
YKSYżo 0,6/1 kV				
0353 031	7 x 10	18.8	672.0	873
0353 043	10 x 10	24.2	960.0	1241
YKSYżo 0,6/1 kV				
0353 052	7 x 16	21.5	1075.2	1279
0353 053	10 x 16	28.2	1536.0	1836

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKGY-żo 0,6/1 kV

### MINING POWER CABLES



### APPLICATIONS

YnKGY-żo 0,6/1 kV are mining power cables intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in workings of class A coal dust explosion hazard.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and **Certificate No. 2242/A1/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	natural and red
4	green-yellow	natural, red and blue
5	green-yellow	natural, red, blue and black

- insulated conductors laid-up into a cable core,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage Uo/U	0.6/1 kV	Temperature range	from - 30 to + 70°C
Voltage test	4 kV rms	during operation	from - 5 to + 70°C
Conductor temperature limit		during installation	
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 s <sub>ec</sub> *
									mm <sup>2</sup>
1385 004	3 x 1,5	10.5	43.2	160	12.1	0.36	0.103	19	0.17
1385 005	4 x 1,5	11.4	58.0	190	12.1	0.36	0.103	19	0.17
1385 009	5 x 1,5	12.6	72.0	230	12.1	0.36	0.103	19	0.17
1385 001	3 x 2,5	12.0	72.0	205	7.41	0.33	0.097	27	0.29
1385 002	4 x 2,5	12.9	96.0	250	7.41	0.33	0.097	27	0.29
1385 003	5 x 2,5	13.7	120.0	300	7.41	0.33	0.097	27	0.29
1385 006	3 x 4	14.5	115.0	310	4.61	0.30	0.098	37	0.46
1385 004	4 x 4	15.5	154.0	370	4.61	0.30	0.098	37	0.46
1385 012	5 x 4	16.4	192.0	440	4.61	0.30	0.098	37	0.46

\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGYyn-žo 0,6/1 kV

### MINING POWER CABLES

TECHNOKABEL YKGYyn-žo 0,6/1 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Multicore  
12xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24

### APPLICATIONS

YKGYyn-žo 0,6/1 kV are mining power cables intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in workings of class A coal dust explosion hazard.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and **Certificate No. 2242/A1/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	natural and red
4	green-yellow	natural, red and blue
5	green-yellow	natural, red, blue and black

- insulated conductors laid-up into a cable core,
- inner covering on cable core, PVC or unvulcanised rubber,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Conductor temperature limit		during installation	from - 5 to + 70°C
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 sec*
	mm <sup>2</sup>	mm	kg/km	kg/km	Ω/km	mH/km	Ω/km	A	kA
1730 001	3 x 1,5	14.1	43.2	275	12.1	0.36	0.103	19	0.17
1730 002	4 x 1,5	15.0	58.0	310	12.1	0.36	0.103	19	0.17
1730 003	5 x 1,5	16.2	72.0	350	12.1	0.36	0.103	19	0.17
1730 004	3 x 2,5	15.6	72.0	325	7.41	0.33	0.097	27	0.29
1730 005	4 x 2,5	16.5	96.0	370	7.41	0.33	0.097	27	0.29
1730 006	5 x 2,5	17.3	120.0	460	7.41	0.33	0.097	27	0.29
1730 007	3 x 4	18.1	115.0	470	4.61	0.30	0.098	37	0.46
1730 008	4 x 4	19.1	154.0	530	4.61	0.30	0.098	37	0.46
1730 009	5 x 4	20.0	192.0	600	4.61	0.30	0.098	37	0.46

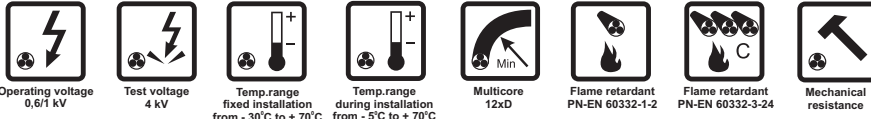
\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGYFoy-n-żo 0,6/1 kV

### MINING POWER CABLES



### APPLICATIONS

YKGYFoy-n-żo 0,6/1 kV are armoured, mining power cables intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in workings of class A or B coal dust explosion hazard.

Steel wire armoured cables can be installed in shafts and mine workings with an angle of inclination up to 90°.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and Certificate No. **2242/A1/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	natural and red
4	green-yellow	natural, red and blue
5	green-yellow	natural, red, blue and black

- insulated conductors laid-up into a cable core,
- inner covering on cable core, PVC or unvulcanised rubber,
- PVC inner sheath,
- galvanized steel wire armour,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage Uo/U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Conductor temperature limit		during installation	from - 5 to + 70°C
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 sec*
	mm <sup>2</sup>	mm	kg/km	kg/km	Ω/km	mH/km	Ω/km	A	kA
1415 003	3 x 2,5	15,7	72,0	580	7,41	0,33	0,097	27	0,29
1415 004	4 x 2,5	16,5	96,0	370	7,41	0,33	0,097	27	0,29
1415 005	5 x 2,5	17,3	120,0	460	7,41	0,33	0,097	27	0,29
1415 006	3 x 4	18,1	115,0	470	4,61	0,30	0,098	37	0,46
1415 002	4 x 4	19,1	154,0	530	4,61	0,30	0,098	37	0,46
1415 007	5 x 4	20,0	192,0	600	4,61	0,30	0,098	37	0,46

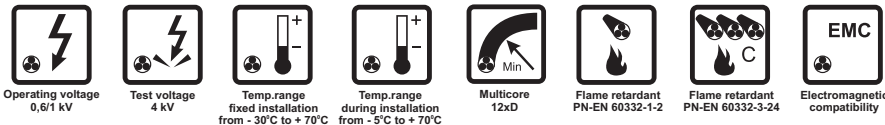
\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YHKGYyn 0,6/1 kV

### MINING POWER CABLES



### APPLICATIONS

**YHKGYyn 0,6/1 kV** are mining power cables with individually shielded wires intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard,
- underground mines in workings of class A or B coal dust explosion hazard.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and Certificates No. **2242/A1/2011** and **2242/A2/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation: natural, red and blue,
- copper tape shield,
- copper single wire or multiwire conductor as a central element,
- shielded conductors laid-up around the central element,
- inner covering on cable core, PVC or unvulcanised rubber,
- PVC inner sheath,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Conductor temperature limit		during installation	from - 5 to + 70°C
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

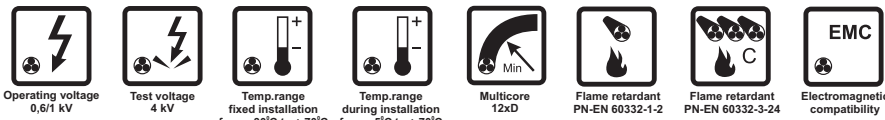
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 sec*
	mm <sup>2</sup>	mm	kg/km	kg/km	Ω/km	mH/km	Ω/km	A	kA
1729 001	3 x 10/6	25.7	346	1145	1.830	0.30	0.098	68	1.15
1729 009	3 x 16/16	27.4	614	1390	1.150	0.30	0.094	88	1.84
1729 005	3 x 25/16	31.5	874	1860	0.727	0.28	0.089	116	2.88
1729 003	3 x 35/16	32.6	1162	2070	0.524	0.28	0.087	140	4.03
1729 006	3 x 50/16	36.6	1594	2950	0.387	0.28	0.084	170	5.75
1729 004	3 x 70/25	40.3	2256	3510	0.268	0.26	0.081	212	8.05
1729 007	3 x 95/25	45.7	3072	4950	0.193	0.24	0.080	259	10.93
1729 008	3 x 120/35	49.7	3936	5880	0.153	0.24	0.078	299	13.80

\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YHKGYekyn 0,6/1 kV

### MINING POWER CABLES



### APPLICATIONS

YHKGYekyn 0,6/1 kV are mining power cables with individually shielded wires intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard,
- underground mines in workings of class A or B coal dust explosion hazard.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and **Certificates No. 2242/A1/2011** and **2242/A2/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation: natural, red and blue,
- copper tape shield,
- copper single wire or multiwire conductor as a central element,
- shielded conductors laid-up around the central element,
- inner covering on cable core, PVC or unvulcanised rubber,
- PVC inner sheath,
- copper tape shield,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Conductor temperature limit		during installation	from - 5 to + 70°C
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 sec*
	mm <sup>2</sup>	mm	kg/km	kg/km	Ω/km	mH/km	Ω/km	A	kA
1381 003	3 x 10/6	26.2	426	1220	1.830	0.30	0.098	68	1.15
1381 004	3 x 16/16	27.9	714	1480	1.150	0.30	0.094	88	1.84
1381 005	3 x 25/16	32.0	984	1960	0.727	0.28	0.089	116	2.88
1381 001	3 x 35/16	33.1	1290	2190	0.524	0.28	0.087	140	4.03
1381 006	3 x 50/16	37.1	1722	3080	0.387	0.28	0.084	170	5.75
1381 002	3 x 70/25	40.8	2396	3660	0.268	0.26	0.081	212	8.05
1381 007	3 x 95/25	46.2	3242	5120	0.193	0.24	0.080	259	10.93
1381 008	3 x 120/35	50.2	4116	6080	0.153	0.24	0.078	299	13.80

\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YHKGyFtZnyn 0,6/1 kV

### MINING POWER CABLES



### APPLICATIONS

YHKGyFtZnyn 0,6/1 kV are armoured, mining power cables with individually shielded wires intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard,
- underground mines in workings of class A or B coal dust explosion hazard.

Steel tape armoured cables can be installed in mine workings with an angle of inclination up to 45°.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and **Certificates No. 2242/A1/2011** and **2242/A2/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation: natural, red and blue,
- copper tape shield,
- copper single wire or multiwire conductor as a central element,
- shielded conductors laid-up around the central element,
- inner covering on cable core, PVC or unvulcanised rubber,
- PVC inner sheath,
- galvanized steel tape armour,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Conductor temperature limit		during installation	from - 5 to + 70°C
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 sec*
	mm <sup>2</sup>	mm	kg/km	kg/km	Ω/km	mH/km	Ω/km	A	kA
1645 001	3 x 10/6	26.6	346	1345	1.830	0.34	0.108	68	1.15
1645 002	3 x 16/16	28.3	614	1610	1.150	0.33	0.104	88	1.84
1645 003	3 x 25/16	32.4	874	2130	0.727	0.31	0.098	117	2.88
1645 005	3 x 35/16	33.5	1162	2370	0.524	0.31	0.096	142	4.03
1645 006	3 x 50/16	37.5	1594	3290	0.387	0.30	0.091	172	5.75
1645 007	3 x 70/25	41.2	2256	3890	0.268	0.28	0.089	213	8.05
1645 008	3 x 95/25	46.6	3072	5640	0.193	0.27	0.088	261	10.93

\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## YHKGyFoyN 0,6/1 kV

### MINING POWER CABLES



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Multicore  
12xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility



Mechanical  
resistance

### APPLICATIONS

YHKGyFoyN 0,6/1 kV are armoured, mining power cables with individually shielded wires intended to work in power engineering installations.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard,
- underground mines in workings of class A or B coal dust explosion hazard.

Steel tape armoured cables can be installed in mine workings with an angle of inclination up to 90°.

Cables have positive **Technical Opinion No. 2242/2011** regarding application in underground mines and **Certificates No. 2242/A1/2011** and **2242/A2/2011** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors, meeting requirements of class 1 or 2 per PN-EN 60228,
- PVC insulation, colours of insulation: natural, red and blue,
- copper tape shield,
- copper single wire or multiwire conductor as a central element,
- shielded conductors laid-up around the central element,
- inner covering on cable core, PVC or unvulcanised rubber,
- PVC inner sheath,
- galvanized steel wire armour,
- special (oxygen index bigger than 29%) PVC cable sheath, yellow, other colours also available.

### CHARACTERISTICS

Operating voltage Uo/U	0,6/1 kV	Temperature range	
Voltage test	4 kV rms	during operation	from - 30 to + 70°C
Conductor temperature limit		during installation	from - 5 to + 70°C
in work conditions	+ 70°C	Minimum bending radius	12 x cable diameter
in short-circuit	+ 160°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-27

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	DC conductor resistance at 20°C, maximum	Inductance, approximate	Inductive reactance	Current carrying capacity	Short-circuit current rating for 1 sec*
	mm <sup>2</sup>	mm	kg/km	kg/km	Ω/km	mH/km	Ω/km	A	kA
1627 006	3 x 10/6	28.9	346	2315	1.830	0.34	0.108	68	1.15
1627 007	3 x 16/16	30.6	614	2830	1.150	0.33	0.103	88	1.84
1627 008	3 x 25/16	35.5	874	3710	0.727	0.31	0.098	117	2.88
1627 002	3 x 35/16	36.6	1162	3920	0.524	0.31	0.096	142	4.03
1627 003	3 x 50/16	40.6	1594	4860	0.387	0.30	0.091	172	5.75
1627 004	3 x 70/25	44.3	2256	6490	0.268	0.28	0.089	213	8.05
1627 005	3 x 95/25	50.7	3072	8200	0.193	0.27	0.088	261	10.93
1627 009	3 x 120/35	54.7	3936	11180	0.153	0.26	0.086	301	13.80

\* 1 second short-circuit current rating is calculated assuming that the temperature of power conductors during short-circuit equals the maximum conductor operating temperature under normal conditions.

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice

## YnKGSY

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Multicore  
12xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24

## APPLICATIONS

**YnKGSY 150/250 V**, **YnKGSY 300/500 V** and **YnKGSY 0,6/1 kV** are mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard,
- underground mines in workings of class A coal dust explosion hazard,
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas,
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificate No. 06/09/A1** issued by **TI EMAG Institute**.

## CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

## AVAILABLE UPON REQUEST

**YnKGSX** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**YnKGSXS** - cross-linked polyethylene insulated cables (XS) of low capacitance and higher, up to 90°C, conductor temperature limit, designed to transmit signals over long distances. Cables are designed for operating voltages 300/500 V and 0,6/1 kV. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSX** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnKGSY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
0909 003	2 x 1 + 1	7.0	28.8	85
0909 004	4 x 1 + 1	8.0	48.0	120
0909 005	6 x 1 + 1	8.7	67.0	138
0909 001	9 x 1 + 1	10.6	96.0	189
0909 006	13 x 1 + 1	11.4	134.0	245
0909 007	20 x 1 + 1	13.1	202.0	345
0909 008	2 x 1,5 + 1,5	7.9	43.2	114
0909 002	4 x 1,5 + 1,5	9.2	72.0	155
0909 009	6 x 1,5 + 1,5	10.0	101.0	192
0909 010	9 x 1,5 + 1,5	12.4	144.0	265

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
0909 011	13 x 1.5 + 1.5	13.4	202.0	350
0909 012	2 x 2.5 + 2.5	8.8	72.0	156
0909 013	4 x 2.5 + 2.5	10.3	120.0	230
0909 014	6 x 2.5 + 2.5	11.2	168.0	275
0909 015	9 x 2.5 + 2.5	14.0	240.0	380
0909 016	2 x 4 + 4	10.3	115.0	230
0909 017	4 x 4 + 4	12.1	192.0	340
0909 018	6 x 4 + 4	13.3	269.0	410
0909 019	9 x 4 + 4	16.7	384.0	570

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0907 009	2 x 1 + 1	7.8	28.8	101
0907 010	4 x 1 + 1	9.1	48.0	143
0907 011	6 x 1 + 1	9.9	67.0	162
0907 012	9 x 1 + 1	12.2	96.0	225
0907 013	13 x 1 + 1	13.2	134.0	290
0907 014	20 x 1 + 1	15.3	202.0	405
0907 005	2 x 1,5 + 1,5	8.3	43.2	117
0907 006	4 x 1,5 + 1,5	9.7	72.0	170
0907 001	6 x 1,5 + 1,5	10.6	101.0	205
0907 003	9 x 1,5 + 1,5	13.1	144.0	285

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0907 004	13 x 1,5 + 1,5	14.2	202.0	355
0907 015	2 x 2,5 + 2,5	9.2	72.0	166
0907 016	4 x 2,5 + 2,5	10.8	120.0	245
0907 017	6 x 2,5 + 2,5	11.8	168.0	290
0907 018	9 x 2,5 + 2,5	14.8	240.0	400
0907 019	2 x 4 + 4	11.1	115.0	250
0907 020	4 x 4 + 4	13.2	192.0	375
0907 021	6 x 4 + 4	14.5	269.0	445
0907 022	9 x 4 + 4	18.7	384.0	635

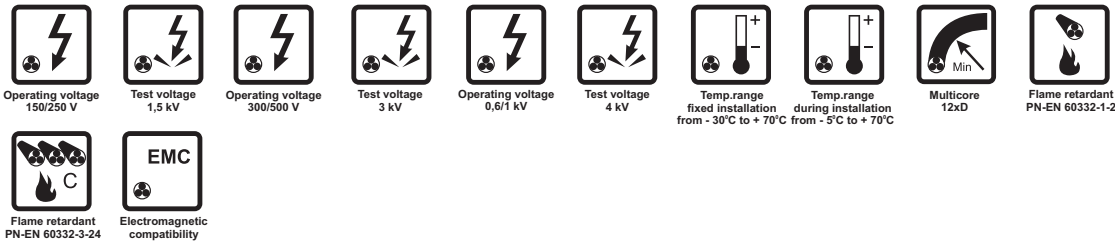
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0897 025	2 x 1 + 1	8.7	28.8	119
0897 019	4 x 1 + 1	10.2	48.0	169
0897 015	6 x 1 + 1	11.0	67.0	179
0897 014	9 x 1 + 1	13.7	96.0	255
0897 017	13 x 1 + 1	14.4	134.0	310
0897 027	20 x 1 + 1	17.4	202.0	475
0897 011	2 x 1,5 + 1,5	9.2	43.2	138
0897 002	3 x 1,5 + 1,5	10.0	57.6	168
0897 005	4 x 1,5 + 1,5	10.8	72.0	201
0897 006	6 x 1,5 + 1,5	11.8	101.0	235
0897 012	9 x 1,5 + 1,5	14.7	144.0	315

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0897 008	13 x 1,5 + 1,5	16.1	202.0	420
0897 003	18 x 1,5 + 1,5	17.8	274.0	544
0897 007	23 x 1,5 + 1,5	21.2	345.0	690
0897 028	2 x 2,5 + 2,5	10.1	72.0	187
0897 004	4 x 2,5 + 2,5	11.9	120.0	270
0897 010	6 x 2,5 + 2,5	12.9	168.0	305
0897 029	9 x 2,5 + 2,5	16.4	240.0	445
0897 026	2 x 4 + 4	12.0	115.0	280
0897 016	4 x 4 + 4	13.9	192.0	380
0897 030	6 x 4 + 4	15.7	269.0	480
0897 031	9 x 4 + 4	20.3	384.0	690

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKGSYkono

### MINING CONTROL CABLES



### APPLICATIONS

YnKGSYkono 150/250 V, YnKGSYkono 300/500 V and YnKGSYkono 0,6/1 kV are overall shielded mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard,
- underground mines in workings of class A or B coal dust explosion hazard,
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas,
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engendering installations.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificate No. 06/09/A1** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductor	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnKGSXkono** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**YnKGSXSkono** cross-linked polyethylene insulated cables (XS) of low capacitance and higher, up to 90°C, conductor temperature limit, designed to transmit signals over long distances. Cables are designed for operating voltages 300/500 V and 0,6/1 kV. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXkono** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnKGSYkono

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1734 001	2 x 1 + 1	7.6	41.8	93
1734 002	4 x 1 + 1	8.6	64.0	130
1734 003	6 x 1 + 1	9.2	85.0	158
1734 004	9 x 1 + 1	11.1	119.0	215
1734 005	13 x 1 + 1	12.0	164.0	280
1734 006	20 x 1 + 1	13.7	237.0	385
1734 007	2 x 1,5 + 1,5	8.5	59.0	121
1734 008	4 x 1,5 + 1,5	9.8	92.0	174
1734 009	6 x 1,5 + 1,5	10.5	122.0	215
1734 010	9 x 1,5 + 1,5	13.0	177.0	300

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1734 011	13 x 1,5 + 1,5	14.0	238.0	385
1734 012	2 x 2,5 + 2,5	9.4	90.0	160
1734 013	4 x 2,5 + 2,5	10.9	143.0	240
1734 014	6 x 2,5 + 2,5	11.7	193.0	300
1734 015	9 x 2,5 + 2,5	14.6	278.0	420
1734 016	2 x 4 + 4	10.9	138.0	230
1734 017	4 x 4 + 4	12.8	225.0	350
1734 018	6 x 4 + 4	13.9	305.0	445
1734 019	9 x 4 + 4	17.5	448.0	635

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1189 006	2 x 1 + 1	8.4	44.3	107
1189 022	4 x 1 + 1	9.7	67.0	152
1189 003	6 x 1 + 1	10.4	88.0	178
1189 004	9 x 1 + 1	12.8	128.0	255
1189 005	13 x 1 + 1	13.7	170.0	315
1189 023	20 x 1 + 1	15.9	244.0	450
1189 015	2 x 1,5 + 1,5	8.6	54.0	119
1189 021	4 x 1,5 + 1,5	10.3	92.0	177
1189 013	6 x 1,5 + 1,5	11.1	124.0	220
1189 012	9 x 1,5 + 1,5	13.7	179.0	315

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1189 011	13 x 1,5 + 1,5	14.8	240.0	395
1189 014	2 x 2,5 + 2,5	9.7	90.0	158
1189 016	4 x 2,5 + 2,5	11.3	143.0	235
1189 024	6 x 2,5 + 2,5	12.4	199.0	320
1189 025	9 x 2,5 + 2,5	15.4	281.0	445
1189 026	2 x 4 + 4	11.7	140.0	245
1189 027	4 x 4 + 4	13.9	228.0	380
1189 028	6 x 4 + 4	15.1	309.0	485
1189 029	9 x 4 + 4	19.5	455.0	710

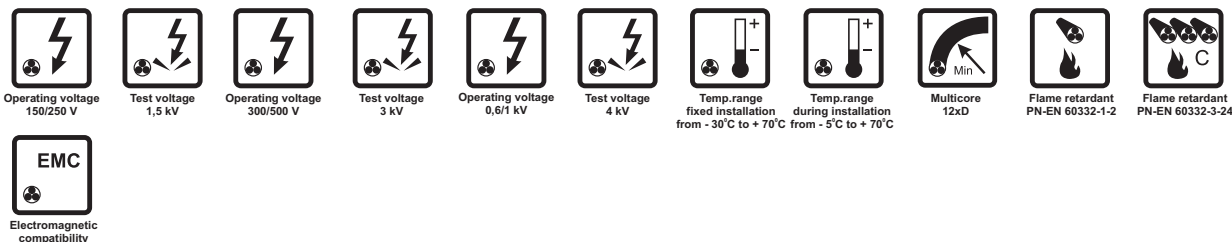
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1369 007	2 x 1 + 1	8.9	40.3	111
1369 003	3 x 1 + 1	9.9	57.0	140
1369 011	6 x 1 + 1	11.6	92.0	215
1369 004	9 x 1 + 1	14.2	127.0	285
1369 009	13 x 1 + 1	14.9	164.0	340
1369 010	18 x 1 + 1	16.5	223.0	435
1369 005	29 x 1 + 1	21.3	346.0	695
1369 012	2 x 1,5 + 1,5	9.8	63.0	145
1369 002	4 x 1,5 + 1,5	11.4	95.0	205
1369 013	6 x 1,5 + 1,5	12.4	132.0	270
1369 014	9 x 1,5 + 1,5	15.4	185.0	365

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1369 015	13 x 1,5 + 1,5	16.6	245.0	445
1369 016	2 x 2,5 + 2,5	10.7	94.0	187
1369 006	4 x 2,5 + 2,5	12.4	144.0	270
1369 017	6 x 2,5 + 2,5	13.6	203.0	355
1369 018	9 x 2,5 + 2,5	17.2	303.0	505
1369 019	2 x 4 + 4	12.7	147.0	275
1369 020	4 x 4 + 4	15.0	232.0	415
1369 021	6 x 4 + 4	16.3	313.0	525
1369 022	9 x 4 + 4	21.1	463.0	770

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGSYkonoyń

### MINING CONTROL CABLES



### APPLICATIONS

**YKGSYkonoyń 150/250 V**, **YKGSYkonoyń 300/500 V** and **YKGSYkonoyń 0.6/1 kV** are overall shielded mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones,
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard,
- underground mines in workings of class A or B coal dust explosion hazard,
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas,
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Cable inner sheath offers enhanced protection against mechanical damage.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificate No. 06/09/A1** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colour of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- inner PVC sheath,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YKGSXkonoyń** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXkonoxn** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YKGSYkonoyñ

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1731 002	2 x 1 + 1	9.6	47.6	141
1731 003	4 x 1 + 1	10.6	70	183
1731 004	6 x 1 + 1	11.2	91	215
1731 005	9 x 1 + 1	13.2	130	290
1731 006	13 x 1 + 1	14.0	171	350
1731 007	20 x 1 + 1	15.7	244	465
1731 008	2 x 1,5 + 1,5	10.5	65	177
1731 009	4 x 1,5 + 1,5	11.8	97	240
1731 010	6 x 1,5 + 1,5	12.6	133	290
1731 011	9 x 1,5 + 1,5	15.0	184	385

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1731 001	13 x 1,5 + 1,5	16.0	245	475
1731 012	2 x 2,5 + 2,5	11.4	96	225
1731 013	4 x 2,5 + 2,5	13.0	153	315
1731 014	6 x 2,5 + 2,5	13.8	204	385
1731 015	9 x 2,5 + 2,5	16.6	285	520
1731 016	2 x 4 + 4	12.9	148	310
1731 017	4 x 4 + 4	14.8	231	440
1731 018	6 x 4 + 4	15.9	312	540
1731 019	9 x 4 + 4	19.9	457	780

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1106 002	2 x 1 + 1	10.4	50	163
1106 003	4 x 1 + 1	11.7	73	215
1106 005	6 x 1 + 1	12.5	99	260
1106 006	9 x 1 + 1	14.8	135	340
1106 009	13 x 1 + 1	15.8	177	415
1106 007	20 x 1 + 1	18.5	268	580
1106 010	2 x 1,5 + 1,5	11.0	66	189
1106 011	4 x 1,5 + 1,5	12.5	103	260
1106 012	6 x 1,5 + 1,5	13.2	135	310
1106 008	9 x 1,5 + 1,5	15.8	186	415

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1106 013	13 x 1,5 + 1,5	17.1	264	525
1106 001	2 x 2,5 + 2,5	11.8	97	240
1106 004	4 x 2,5 + 2,5	13.5	155	335
1106 014	6 x 2,5 + 2,5	14.4	206	405
1106 015	9 x 2,5 + 2,5	17.6	305	565
1106 016	2 x 4 + 4	13.8	151	340
1106 017	4 x 4 + 4	15.9	235	480
1106 018	6 x 4 + 4	17.3	332	610
1106 019	9 x 4 + 4	21.5	464	855

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1644 002	2 x 1 + 1	11.3	52	187
1644 003	4 x 1 + 1	12.9	81	255
1644 004	6 x 1 + 1	13.7	103	295
1644 005	9 x 1 + 1	16.4	141	395
1644 006	13 x 1 + 1	17.8	200	500
1644 007	20 x 1 + 1	20.6	278	680
1644 001	2 x 1,5 + 1,5	11.8	69	215
1644 008	3 x 1,5 + 1,5	12.0	89	230
1644 009	4 x 1,5 + 1,5	13.5	107	295
1644 010	6 x 1,5 + 1,5	14.4	139	350

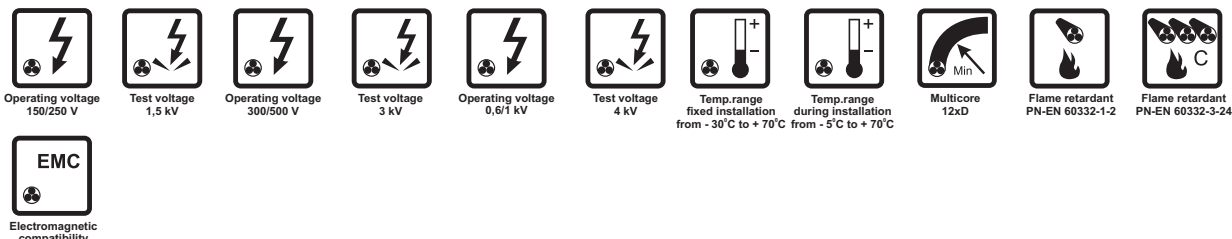
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1644 011	9 x 1,5 + 1,5	17.6	209	490
1644 012	13 x 1,5 + 1,5	16.1	240	415
1644 013	18 x 1,5 + 1,5	17.8	317	530
1644 014	2 x 2,5 + 2,5	12.8	104	270
1644 015	4 x 2,5 + 2,5	14.6	159	370
1644 016	6 x 2,5 + 2,5	15.6	210	450
1644 017	9 x 2,5 + 2,5	19.6	312	650
1644 018	2 x 4 + 4	14.7	154	375
1644 019	4 x 4 + 4	17.2	255	545
1644 020	6 x 4 + 4	18.9	337	680

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGSYektyn

### MINING CONTROL CABLES



### APPLICATIONS

**YKGSYektyn 150/250 V**, **KGSYektyn 300/500 V** and **YKGSYektyn 0,6/1 kV** are overall shielded, mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificate No. 06/09/A1** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colour of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- inner PVC sheath,
- copper tape shield,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YKGSXektyn** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXektyn** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.



## YKGSYektyn

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage U <sub>o</sub> /U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1735 001	2 x 1 + 1	9.5	55	149
1735 002	4 x 1 + 1	10.5	79	192
1735 003	6 x 1 + 1	11.1	100	225
1735 004	9 x 1 + 1	13.0	137	295
1735 005	13 x 1 + 1	13.8	179	360
1735 006	20 x 1 + 1	15.5	253	475
1735 007	2 x 1,5 + 1,5	10.4	74	186
1735 008	4 x 1,5 + 1,5	11.7	109	250
1735 009	6 x 1,5 + 1,5	12.4	139	295
1735 010	9 x 1,5 + 1,5	14.8	192	395

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1735 011	13 x 1,5 + 1,5	15.8	254	485
1735 012	2 x 2,5 + 2,5	11.3	105	235
1735 013	4 x 2,5 + 2,5	12.8	160	325
1735 014	6 x 2,5 + 2,5	13.6	211	390
1735 015	9 x 2,5 + 2,5	16.4	295	530
1735 016	2 x 4 + 4	12.8	155	320
1735 017	4 x 4 + 4	14.6	240	450
1735 018	6 x 4 + 4	15.7	321	550
1735 019	9 x 4 + 4	19.5	450	775

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1736 001	2 x 1 + 1	10.3	59	172
1736 002	4 x 1 + 1	11.6	84	225
1736 003	6 x 1 + 1	12.3	105	265
1736 004	9 x 1 + 1	14.6	143	350
1736 005	13 x 1 + 1	15.6	186	420
1736 006	20 x 1 + 1	17.7	262	560
1736 007	2 x 1,5 + 1,5	10.9	75	198
1736 008	4 x 1,5 + 1,5	12.3	110	265
1736 009	6 x 1,5 + 1,5	13.0	142	315
1736 010	9 x 1,5 + 1,5	15.6	196	425

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1736 011	13 x 1,5 + 1,5	16.7	258	520
1736 012	2 x 2,5 + 2,5	11.7	109	250
1736 013	4 x 2,5 + 2,5	13.3	163	340
1736 014	6 x 2,5 + 2,5	14.2	214	415
1736 015	9 x 2,5 + 2,5	17.2	298	560
1736 016	2 x 4 + 4	13.6	159	350
1736 017	4 x 4 + 4	15.7	244	490
1736 018	6 x 4 + 4	16.9	326	600
1736 019	9 x 4 + 4	21.1	457	845

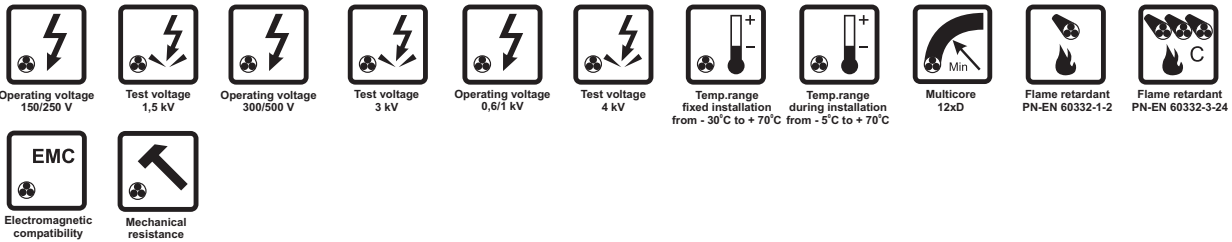
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0953 007	2 x 1 + 1	11.2	62	196
0953 002	4 x 1 + 1	12.7	88	260
0953 014	6 x 1 + 1	13.5	110	305
0953 004	9 x 1 + 1	16.2	150	405
0953 001	13 x 1 + 1	17.4	194	490
0953 015	20 x 1 + 1	20.2	270	670
0953 008	2 x 1,5 + 1,5	11.7	80	225
0953 009	4 x 1,5 + 1,5	13.3	115	305
0953 012	6 x 1,5 + 1,5	14.2	147	360
0953 013	9 x 1,5 + 1,5	17.2	202	480

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0953 016	13 x 1,5 + 1,5	18.9	265	610
0953 017	2 x 2,5 + 2,5	12.6	111	280
0953 006	4 x 2,5 + 2,5	14.4	167	380
0953 010	6 x 2,5 + 2,5	15.4	219	460
0953 018	9 x 2,5 + 2,5	19.2	305	640
0953 019	2 x 4 + 4	14.5	162	380
0953 011	4 x 4 + 4	16.8	249	535
0953 020	6 x 4 + 4	18.5	331	675
0953 021	9 x 4 + 4	22.7	464	925

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGSYFoyfn

### MINING CONTROL CABLES



### APPLICATIONS

**YKGSYFoyfn 150/250 V, YKGSYFoyfn 300/500 V and YKGSYFoyfn 0,6/1 kV** are armoured, mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard.
- underground mines in workings of class A coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.
- in vertical mine workings and with an angle of inclination over 45°.

Cables can not be used for power supplying in power engineering installations.

Galvanized steel wire armour provides carrying an axial load of the cable during exploitation. It also offers enhanced protection against mechanical damages.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificate No. 06/09/A1** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- inner PVC sheath,
- galvanized steel wire armour,
- special (oxygen index bigger than 29%) PVC cable covering, black (RAL 9005) or blue (RAL 5015 – for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YKGSXFoyfn** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXFoyfn** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V .

## YKGSYFoyñ

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1737 001	2 x 1 + 1	11.7	28.8	295
1737 002	4 x 1 + 1	12.7	48	355
1737 003	6 x 1 + 1	13.3	67	395
1737 004	9 x 1 + 1	15.9	96	590
1737 005	13 x 1 + 1	16.7	134	675
1737 006	20 x 1 + 1	18.8	202	840
1737 007	2 x 1,5 + 1,5	12.6	43.2	345
1737 008	4 x 1,5 + 1,5	13.9	72	430
1737 009	6 x 1,5 + 1,5	15.3	101	580
1737 010	9 x 1,5 + 1,5	17.7	144	730

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1737 011	13 x 1,5 + 1,5	19.1	202	860
1737 012	2 x 2,5 + 2,5	13.5	72	410
1737 013	4 x 2,5 + 2,5	15.7	120	605
1737 014	6 x 2,5 + 2,5	16.5	168	695
1737 015	9 x 2,5 + 2,5	19.7	240	915
1737 016	2 x 4 + 4	15.7	115	600
1737 017	4 x 4 + 4	17.5	192	775
1737 018	6 x 4 + 4	19.0	269	925
1737 019	9 x 4 + 4	23.1	384	1350

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1410 004	2 x 1 + 1	12.5	28.8	335
1410 001	4 x 1 + 1	13.8	48	405
1410 007	6 x 1 + 1	14.5	67	455
1410 008	9 x 1 + 1	17.5	96	675
1410 009	13 x 1 + 1	18.9	134	785
1410 010	20 x 1 + 1	21.7	202	1110
1410 002	2 x 1,5 + 1,5	13.1	43.2	365
1410 011	4 x 1,5 + 1,5	14.5	72	455
1410 012	6 x 1,5 + 1,5	15.9	101	610
1410 013	9 x 1,5 + 1,5	18.9	144	785

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1410 014	13 x 1,5 + 1,5	20.0	202	915
1410 015	2 x 2,5 + 2,5	13.9	72	430
1410 006	4 x 2,5 + 2,5	16.2	120	645
1410 016	6 x 2,5 + 2,5	17.1	168	725
1410 017	9 x 2,5 + 2,5	20.5	240	965
1410 018	2 x 4 + 4	16.5	115	655
1410 019	4 x 4 + 4	19.0	192	865
1410 020	6 x 4 + 4	20.2	269	1000
1410 021	9 x 4 + 4	25.5	384	1540

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0982 007	2 x 1 + 1	13.4	28.8	365
0982 024	4 x 1 + 1	15.6	48	545
0982 006	6 x 1 + 1	16.4	67	610
0982 030	9 x 1 + 1	19.5	96	790
0982 031	13 x 1 + 1	20.7	134	900
0982 032	20 x 1 + 1	24.2	202	1290
0982 010	2 x 1,5 + 1,5	13.9	43.2	405
0982 005	3 x 1,5 + 1,5	14.5	57.6	450
0982 025	4 x 1,5 + 1,5	16.2	72	610
0982 026	6 x 1,5 + 1,5	17.1	101	675
0982 027	9 x 1,5 + 1,5	20.5	144	890

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0982 009	13 x 1,5 + 1,5	22.5	202	1170
0982 014	36 x 1,5 + 1,5	31.5	533	2170
0982 012	47 x 1,5 + 1,5	35.8	691	2810
0982 001	2 x 2,5 + 2,5	15.5	72	560
0982 028	4 x 2,5 + 2,5	17.3	120	705
0982 029	6 x 2,5 + 2,5	18.7	168	825
0982 022	9 x 2,5 + 2,5	22.8	240	1220
0982 033	2 x 4 + 4	17.4	115	705
0982 034	4 x 4 + 4	20.1	192	935
0982 035	6 x 4 + 4	22.1	269	1210
0982 036	9 x 4 + 4	27.1	384	1650

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnHKGSY

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp.range  
fixed installation  
from -30°C to +70°C



Temp.range  
during installation  
from -5°C to +70°C



Multicore  
12xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

YnHKGSY 150/250 V, YnHKGSY 300/500 V and YnHKGSY 0,6/1 kV are overall shielded mining control cables with individually shielded wires intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- w opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificates No. 06/09/A1** and **06/09/A2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- tinned copper wire braid shield of coverage bigger than 70% on insulated conductors (bare copper wire braid available on request),
- shielded conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnHKGSX** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**YnHKGSXS** - cross-linked polyethylene insulated cables (XS) of low capacitance and higher, up to 90°C, conductor temperature limit, designed to transmit signals over long distances. Cables are designed for operating voltages 300/500 V and 0,6/1 kV. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnHKGSX** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnHKGSY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km
1738 001	2 x 1 + 1	8.1	101
1738 002	4 x 1 + 1	9.4	149
1738 003	6 x 1 + 1	10.1	183
1738 004	9 x 1 + 1	12.5	260
1738 005	13 x 1 + 1	13.5	335
1738 006	20 x 1 + 1	15.6	480
1738 007	2 x 1,5 + 1,5	9.1	133
1738 008	4 x 1,5 + 1,5	10.7	199
1738 009	6 x 1,5 + 1,5	11.6	245
1738 010	9 x 1,5 + 1,5	14.5	350

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km
1738 011	13 x 1,5 + 1,5	15.7	455
1738 012	2 x 2,5 + 2,5	10.0	175
1738 013	4 x 2,5 + 2,5	11.8	270
1738 014	6 x 2,5 + 2,5	12.8	335
1738 015	9 x 2,5 + 2,5	16.1	475
1738 016	2 x 4 + 4	11.5	250
1738 017	4 x 4 + 4	13.7	385
1738 018	6 x 4 + 4	14.9	480
1738 019	9 x 4 + 4	19.3	700

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km
1002 020	2 x 1 + 1	8.9	118
1002 021	4 x 1 + 1	10.5	175
1002 022	6 x 1 + 1	11.3	215
1002 023	9 x 1 + 1	14.1	305
1002 017	13 x 1 + 1	15.3	395
1002 024	20 x 1 + 1	17.8	560
1002 004	2 x 1,5 + 1,5	9.6	142
1002 002	3 x 1,5 + 1,5	10.0	170
1002 007	4 x 1,5 + 1,5	10.7	200
1002 003	6 x 1,5 + 1,5	11.7	235
1002 001	9 x 1,5 + 1,5	15.3	370
1002 009	13 x 1,5 + 1,5	15.8	440

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km
1002 008	18 x 1,5 + 1,5	17.5	570
1002 011	23 x 1,5 + 1,5	20.9	730
1002 006	29 x 1,5 + 1,5	22.2	890
1002 014	2 x 2,5 + 2,5	10.4	186
1002 005	3 x 2,5 + 2,5	10.9	210
1002 025	4 x 2,5 + 2,5	11.2	220
1002 026	6 x 2,5 + 2,5	13.4	350
1002 019	9 x 2,5 + 2,5	16.1	440
1002 027	2 x 4 + 4	12.4	275
1002 015	4 x 4 + 4	14.8	420
1002 028	6 x 4 + 4	16.1	520
1002 029	9 x 4 + 4	20.9	760

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km
0906 014	2 x 1 + 1	9.8	137
0906 007	3 x 1 + 1	10.7	185
0906 015	4 x 1 + 1	11.5	205
0906 019	6 x 1 + 1	12.5	250
0906 009	9 x 1 + 1	15.7	350
0906 020	13 x 1 + 1	17.0	455
0906 021	20 x 1 + 1	20.3	670
0906 008	23 x 1 + 1	23.2	760
0906 018	29 x 1 + 1	23.9	890
0906 022	2 x 1,5 + 1,5	10.4	163
0906 002	3 x 1,5 + 1,5	10.9	200
0906 004	4 x 1,5 + 1,5	12.4	245
0906 001	6 x 1,5 + 1,5	13.4	300
0906 003	9 x 1,5 + 1,5	16.9	420

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km
0906 005	13 x 1,5 + 1,5	18.7	570
0906 006	18 x 1,5 + 1,5	20.1	670
0906 011	23 x 1,5 + 1,5	24.2	860
0906 023	47 x 1,5 + 1,5	31.4	1600
0906 024	2 x 2,5 + 2,5	11.3	210
0906 016	3 x 2,5 + 2,5	12.1	240
0906 025	4 x 2,5 + 2,5	13.4	315
0906 010	6 x 2,5 + 2,5	14.6	390
0906 017	9 x 2,5 + 2,5	18.9	570
0906 026	13 x 2,5 + 2,5	18.7	650
0906 027	2 x 4 + 4	13.2	300
0906 028	4 x 4 + 4	15.9	460
0906 029	6 x 4 + 4	17.3	565
0906 030	9 x 4 + 4	22.5	825

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnHKGSYkono

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from - 30°C to + 70°C



Temp. range  
during installation  
from - 5°C to + 70°C



Multicore  
12x2



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

YnHKGSYkono 150/250 V, YnHKGSYkono 300/500 V and YnHKGSYkono 0,6/1 kV are overall shielded, mining control cables with individually shielded wires intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificates No. 06/09/A1** and **06/09/A2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- tinned copper wire braid shield of coverage bigger than 70% on insulated conductors (bare copper wire braid available on request),
- shielded conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**XnHKGSXkono** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnHKGSYkono

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1739 001	2 x 1 + 1	8.6	57	115
1739 002	4 x 1 + 1	9.9	93	168
1739 003	6 x 1 + 1	10.6	127	210
1739 004	9 x 1 + 1	13.1	186	300
1739 005	13 x 1 + 1	14.1	253	380
1739 006	20 x 1 + 1	16.2	372	535
1739 007	2 x 1,5 + 1,5	9.7	77	147
1739 008	4 x 1,5 + 1,5	11.2	126	220
1739 009	6 x 1,5 + 1,5	12.2	177	280
1739 010	9 x 1,5 + 1,5	15.1	253	395

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1739 011	13 x 1,5 + 1,5	16.3	345	510
1739 012	2 x 2,5 + 2,5	10.5	111	188
1739 013	4 x 2,5 + 2,5	12.4	186	295
1739 014	6 x 2,5 + 2,5	13.4	255	375
1739 015	9 x 2,5 + 2,5	16.7	364	525
1739 016	2 x 4 + 4	12.1	167	265
1739 017	4 x 4 + 4	14.3	272	410
1739 018	6 x 4 + 4	15.5	375	525
1739 019	9 x 4 + 4	20.1	555	785

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1740 006	2 x 1 + 1	9.4	62	132
1740 007	4 x 1 + 1	11.0	101	196
1740 008	6 x 1 + 1	11.8	137	245
1740 009	9 x 1 + 1	14.7	202	350
1740 010	13 x 1 + 1	15.9	274	445
1740 011	20 x 1 + 1	19.0	420	660
1740 001	2 x 1,5 + 1,5	10.1	80	156
1740 003	4 x 1,5 + 1,5	11.8	130	235
1740 004	6 x 1,5 + 1,5	12.8	182	300
1740 005	9 x 1,5 + 1,5	15.9	260	420

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1740 002	13 x 1,5 + 1,5	17.4	371	560
1740 012	2 x 2,5 + 2,5	10.9	113	198
1740 013	4 x 2,5 + 2,5	12.9	190	310
1740 014	6 x 2,5 + 2,5	14.0	260	395
1740 015	9 x 2,5 + 2,5	17.7	389	570
1740 016	2 x 4 + 4	13.0	172	285
1740 017	4 x 4 + 4	15.4	281	445
1740 018	6 x 4 + 4	16.7	386	570
1740 019	9 x 4 + 4	21.7	572	850

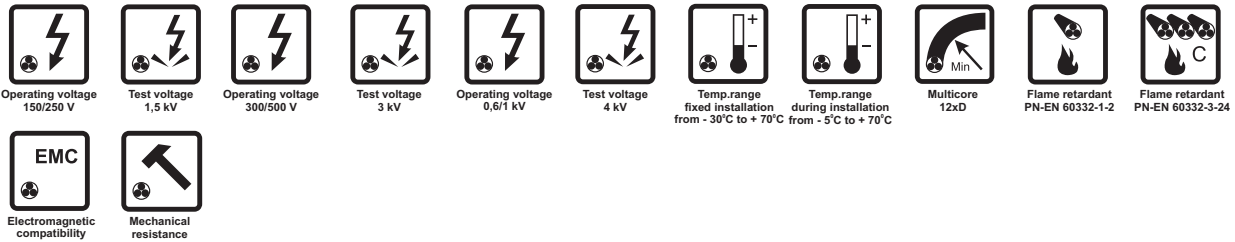
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1464 006	2 x 1 + 1	10.3	67	151
1464 007	4 x 1 + 1	12.1	113	230
1464 008	6 x 1 + 1	13.1	152	285
1464 009	9 x 1 + 1	16.3	218	400
1464 010	13 x 1 + 1	17.8	312	530
1464 011	20 x 1 + 1	21.1	452	765
1464 002	2 x 1,5 + 1,5	10.9	85	175
1464 003	3 x 1,5 + 1,5	11.5	102	200
1464 004	4 x 1,5 + 1,5	12.9	142	270
1464 012	6 x 1,5 + 1,5	14.0	193	340
1464 013	9 x 1,5 + 1,5	17.7	293	495

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1464 014	13 x 1,5 + 1,5	19.5	394	650
1464 005	2 x 2,5 + 2,5	11.8	118	220
1464 001	4 x 2,5 + 2,5	14.0	198	340
1464 015	6 x 2,5 + 2,5	15.2	271	435
1464 016	9 x 2,5 + 2,5	19.7	406	650
1464 017	2 x 4 + 4	13.8	177	310
1464 018	4 x 4 + 4	16.5	289	485
1464 019	6 x 4 + 4	18.5	414	655
1464 020	9 x 4 + 4	23.7	589	945

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YHKGSYFoyn

### MINING CONTROL CABLES



### APPLICATIONS

YHKGSYFoyn 150/250 V, YHKGSYFoyn 300/500 V and YHKGSYFoyn 0,6/1 kV are armoured, mining control cables with individually shielded wires intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.
- in vertical mine workings and with an angle of inclination over 45°.

Cables can not be used for power supplying in power engineering installations.

Galvanized steel wire armour provides carrying an axial load of the cable during exploitation. It also offers enhanced protection against mechanical damages.

Cables have positive **Technical Opinion No. 06/09** regarding application in underground mines and **Certificates No. 06/09/A1** and **06/09/A2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- tinned copper wire braid shield of coverage bigger than 70% on insulated conductors (bare copper wire braid available on request),
- shielded conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- cable core wrapped in polyester tape,
- inner PVC sheath,
- galvanized steel wire armour,
- special (oxygen index bigger than 29%) PVC cable covering, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.



## YHKGSYFoy

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61
Operating voltage U <sub>o</sub> /U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-25

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1728 001	2 x 1 + 1	12.9	41.8	345
1728 002	4 x 1 + 1	14.3	74	430
1728 003	6 x 1 + 1	15.7	106	570
1728 004	9 x 1 + 1	18.6	155	750
1728 005	13 x 1 + 1	19.6	219	855
1728 006	20 x 1 + 1	22.6	332	1210
1728 007	2 x 1,5 + 1,5	13.7	59	395
1728 008	4 x 1,5 + 1,5	16.0	103	595
1728 009	6 x 1,5 + 1,5	16.9	148	675
1728 010	9 x 1,5 + 1,5	20.2	214	885

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
1728 011	13 x 1,5 + 1,5	22.1	303	1160
1728 012	2 x 2,5 + 2,5	15.3	90	555
1728 013	4 x 2,5 + 2,5	17.1	156	690
1728 014	6 x 2,5 + 2,5	18.5	222	825
1728 015	9 x 2,5 + 2,5	22.5	321	1200
1728 016	2 x 4 + 4	16.8	137	670
1728 017	4 x 4 + 4	19.4	236	895
1728 018	6 x 4 + 4	20.6	335	1040
1728 019	9 x 4 + 4	26.1	483	1600

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1485 003	2 x 1 + 1	13.7	44.1	380
1485 004	4 x 1 + 1	16.0	79	575
1485 005	6 x 1 + 1	16.9	113	645
1485 006	9 x 1 + 1	20.2	165	840
1485 007	13 x 1 + 1	22.1	234	1100
1485 008	20 x 1 + 1	25.5	355	1420
1485 009	2 x 1,5 + 1,5	14.2	60	420
1485 010	4 x 1,5 + 1,5	16.6	106	625
1485 011	6 x 1,5 + 1,5	17.5	151	710
1485 012	9 x 1,5 + 1,5	21.7	220	1080

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1485 013	13 x 1,5 + 1,5	23.0	311	1230
1485 014	2 x 2,5 + 2,5	15.7	91	565
1485 015	4 x 2,5 + 2,5	17.7	158	735
1485 016	6 x 2,5 + 2,5	19.1	226	860
1485 017	9 x 2,5 + 2,5	23.7	327	1280
1485 002	2 x 4 + 4	17.7	140	725
1485 018	4 x 4 + 4	20.5	241	965
1485 019	6 x 4 + 4	22.5	342	1260
1485 020	9 x 4 + 4	27.7	494	1710

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1117 006	2 x 1 + 1	15.3	46.6	520
1117 013	4 x 1 + 1	17.1	84	635
1117 014	6 x 1 + 1	18.5	121	740
1117 015	9 x 1 + 1	22.5	176	1080
1117 016	13 x 1 + 1	24.3	250	1260
1117 017	20 x 1 + 1	27.6	380	1610
1117 001	2 x 1,5 + 1,5	15.7	62	545
1117 004	4 x 1,5 + 1,5	17.7	110	695
1117 018	6 x 1,5 + 1,5	19.1	158	805
1117 019	9 x 1,5 + 1,5	23.7	231	1200

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1117 002	13 x 1,5 + 1,5	24.7	327	1200
1117 008	18 x 1,5 + 1,5	26.1	390	1420
1117 020	2 x 2,5 + 2,5	16.6	94	620
1117 003	4 x 2,5 + 2,5	19.1	163	815
1117 007	6 x 2,5 + 2,5	20.3	233	935
1117 021	9 x 2,5 + 2,5	25.7	338	1440
1117 022	2 x 4 + 4	18.9	142	795
1117 012	4 x 4 + 4	22.3	246	1180
1117 023	6 x 4 + 4	24.1	349	1380
1117 024	9 x 4 + 4	29.7	505	1880

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKGSLY

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24

## APPLICATIONS

**YnKGSLY 150/250 V**, **YnKGSLY 300/500 V** and **YnKGSLY 0.6/1 kV** are mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- w opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard.
- underground mines in workings of class A coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** issued by **TI EMAG Institute**.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, and 61 conductors,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

## AVAILABLE UPON REQUEST

**YnKGSYLX** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSYLX** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnKGSLY

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	19.5	13.3	7.98	4.95
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-21

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
0363 010	2 x 1 + 1	6.4	28.8	56
0363 008	3 x 1 + 1	7.8	38.4	91
0363 018	4 x 1 + 1	8.3	48.0	109
0363 009	6 x 1 + 1	8.9	67.0	133
0363 019	9 x 1 + 1	10.9	96.0	181
0363 020	13 x 1 + 1	12.2	134.0	255
0363 021	23 x 1 + 1	15.5	230.0	405
0363 001	2 x 1,5 + 1,5	8.5	43.2	107
0363 003	4 x 1,5 + 1,5	9.9	72.0	158
0363 004	6 x 1,5 + 1,5	10.5	101.0	178
0363 012	9 x 1,5 + 1,5	12.7	144.0	248

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
0363 014	13 x 1,5 + 1,5	14.4	202.0	355
0363 005	2 x 2,5 + 2,5	8.8	72.0	125
0363 006	3 x 2,5 + 2,5	9.3	96.0	145
0363 007	4 x 2,5 + 2,5	10.7	120.0	198
0363 011	6 x 2,5 + 2,5	11.6	168.0	250
0363 022	9 x 2,5 + 2,5	14.9	240.0	390
0363 023	2 x 4 + 4	11.1	115.0	210
0363 024	4 x 4 + 4	13.2	192.0	325
0363 025	6 x 4 + 4	14.3	269.0	420
0363 026	9 x 4 + 4	18.5	384.0	600

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0364 009	2 x 1 + 1	7.7	28.8	79
0364 016	3 x 1 + 1	8.9	38.4	105
0364 001	4 x 1 + 1	9.7	48.0	135
0364 026	6 x 1 + 1	10.4	67.0	167
0364 022	9 x 1 + 1	12.3	96.0	220
0364 011	13 x 1 + 1	13.9	134.0	295
0364 027	23 x 1 + 1	18.3	230.0	490
0364 017	36 x 1 + 1	20.8	355.0	700
0364 002	2 x 1,5 + 1,5	8.3	43.2	97
0364 004	4 x 1,5 + 1,5	9.9	75.0	152
0364 019	6 x 1,5 + 1,5	11.3	101.0	210

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0364 018	9 x 1,5 + 1,5	14.1	144.0	290
0364 013	13 x 1,5 + 1,5	15.3	202.0	380
0364 005	2 x 2,5 + 2,5	9.2	75.0	135
0364 028	4 x 2,5 + 2,5	11.5	120.0	230
0364 010	6 x 2,5 + 2,5	12.5	168.0	295
0364 020	9 x 2,5 + 2,5	15.7	240.0	410
0364 025	2 x 4 + 4	11.3	115.0	201
0364 029	4 x 4 + 4	14.2	192.0	350
0364 030	6 x 4 + 4	15.5	269.0	450
0364 031	9 x 4 + 4	20.1	384.0	650

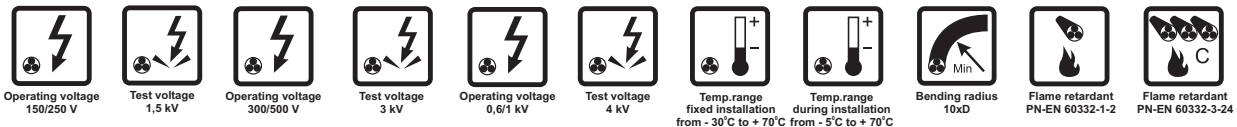
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0362 015	2 x 1 + 1	9.1	28.8	106
0362 016	4 x 1 + 1	10.7	48.0	156
0362 013	6 x 1 + 1	11.6	67.0	186
0362 017	9 x 1 + 1	14.5	96.0	265
0362 018	13 x 1 + 1	15.7	134.0	345
0362 019	23 x 1 + 1	20.7	230.0	570
0362 011	2 x 1,5 + 1,5	9.8	43.2	123
0362 005	4 x 1,5 + 1,5	10.9	72.0	191
0362 003	6 x 1,5 + 1,5	11.9	101.0	215
0362 006	9 x 1,5 + 1,5	15.3	144.0	331

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0362 008	13 x 1,5 + 1,5	17.0	202.0	421
0362 002	2 x 2,5 + 2,5	10.1	63.0	149
0362 020	4 x 2,5 + 2,5	12.6	120.0	255
0362 012	6 x 2,5 + 2,5	13.7	168.0	325
0362 021	9 x 2,5 + 2,5	17.3	240.0	450
0362 022	2 x 4 + 4	12.8	115.0	245
0362 023	4 x 4 + 4	15.3	192.0	380
0362 024	6 x 4 + 4	16.7	269.0	490
0362 025	9 x 4 + 4	21.7	384.0	705

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKGSLYżo-P; YnKGSLYżo-T

### MINING CONTROL CABLES



### APPLICATIONS

**YnKGSLYżo-P** (multipair) and **YnKGSLYżo-T** (multitriples) are mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard.
- underground mines in workings of class A coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Paired or tripled structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - pairs – black and brown insulation and white pair number printed on it,
  - triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 – for intrinsically safe circuits), other colors also available.

### AVAILABLE UPON REQUEST

**YnKGSXLXżo-P, YnKGSXLXżo-T** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 300/300 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXLXżo-P, XnKGSXLXżo-T** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 300/300 V.

## YnKGSLYżo-P; YnKGSLYżo-T

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage U <sub>o</sub> /U	V	<b>300/300</b>		<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500		3000	3500	
Insulation resistance, minimum	MΩ·km	20		20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-24

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1741 001	2 x 2 x 0,75 + 0,75	9.7	36	109
1741 002	4 x 2 x 0,75 + 0,75	11.1	65	160
1741 003	7 x 2 x 0,75 + 0,75	13.1	108	235
1741 004	12 x 2 x 0,75 + 0,75	16.4	180	360
1741 005	16 x 2 x 0,75 + 0,75	18.9	238	475
1741 006	18 x 2 x 0,75 + 0,75	19.8	266	525
1741 007	2 x 2 x 1 + 1	10.0	48	124
1741 008	4 x 2 x 1 + 1	11.5	86	186
1741 009	7 x 2 x 1 + 1	13.6	144	280
1741 010	12 x 2 x 1 + 1	17.1	240	430

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1741 011	16 x 2 x 1 + 1	19.7	317	565
1741 012	2 x 2 x 1,5 + 1,5	11.7	72	167
1741 013	4 x 2 x 1,5 + 1,5	13.6	130	255
1741 014	7 x 2 x 1,5 + 1,5	16.2	216	390
1741 015	12 x 2 x 1,5 + 1,5	20.9	360	625
1741 016	2 x 2 x 2,5 + 2,5	13.1	120	230
1741 017	4 x 2 x 2,5 + 2,5	15.2	216	360
1741 018	7 x 2 x 2,5 + 2,5	18.6	360	575
1741 019	12 x 2 x 2,5 + 2,5	24.0	600	930

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1742 001	2 x 2 x 0,75 + 0,75	11.1	36	129
1742 002	4 x 2 x 0,75 + 0,75	12.7	65	189
1742 003	7 x 2 x 0,75 + 0,75	15.1	108	280
1742 004	12 x 2 x 0,75 + 0,75	19.5	180	450
1742 005	16 x 2 x 0,75 + 0,75	22.0	238	565
1742 006	18 x 2 x 0,75 + 0,75	23.2	266	625
1742 007	2 x 2 x 1 + 1	11.4	48	144
1742 008	4 x 2 x 1 + 1	13.2	86	220
1742 009	7 x 2 x 1 + 1	15.7	144	325
1742 010	12 x 2 x 1 + 1	20.2	240	520

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1742 011	16 x 2 x 1 + 1	22.8	317	660
1742 012	2 x 2 x 1,5 + 1,5	12.4	72	178
1742 013	4 x 2 x 1,5 + 1,5	14.4	130	275
1742 014	7 x 2 x 1,5 + 1,5	17.2	216	415
1742 015	12 x 2 x 1,5 + 1,5	22.2	360	670
1742 016	2 x 2 x 2,5 + 2,5	13.8	120	240
1742 017	4 x 2 x 2,5 + 2,5	16.0	216	380
1742 018	7 x 2 x 2,5 + 2,5	19.6	360	605
1742 019	12 x 2 x 2,5 + 2,5	25.3	600	975

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1743 003	2 x 2 x 0,75 + 0,75	12.4	36	150
1743 004	4 x 2 x 0,75 + 0,75	14.4	65	225
1743 005	7 x 2 x 0,75 + 0,75	17.2	108	330
1743 006	12 x 2 x 0,75 + 0,75	22.2	180	530
1743 007	16 x 2 x 0,75 + 0,75	25.5	238	695
1743 008	18 x 2 x 0,75 + 0,75	26.9	266	765
1743 009	2 x 2 x 1 + 1	12.8	48	166
1743 010	4 x 2 x 1 + 1	14.8	86	250
1743 011	7 x 2 x 1 + 1	17.7	144	375
1743 012	12 x 2 x 1 + 1	22.9	240	605

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1743 013	16 x 2 x 1 + 1	26.3	317	790
1743 001	2 x 2 x 1,5 + 1,5	13.8	72	205
1743 002	4 x 2 x 1,5 + 1,5	16.0	130	310
1743 014	7 x 2 x 1,5 + 1,5	19.6	216	490
1743 015	12 x 2 x 1,5 + 1,5	25.3	360	780
1743 016	2 x 2 x 2,5 + 2,5	15.1	120	265
1743 017	4 x 2 x 2,5 + 2,5	17.7	216	420
1743 018	7 x 2 x 2,5 + 2,5	21.7	360	665
1743 019	12 x 2 x 2,5 + 2,5	28.0	600	1080

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKGSLYkono

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YnKGSLYkono 150/250 V**, **YnKGSLYkono 300/500 V** and **YnKGSLYkono 0,6/1 kV** are overall shielded mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard.
- underground mines in workings of class A coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33, 37, 40, 48, 52, 56 and 61 conductors,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnKGSLLXkono** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSLLXkono** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnKGSLYkono

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1.0	1.5	2.5	4
DC conductor resistance at 20°C, maximum	Ω/km	19.5	13.3	7.98	4.95
Operating voltage U <sub>o</sub> /U	V	150/250		300/500	600/1000
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-22

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
0366 008	2 x 1 + 1	7.9	42.9	97
0366 002	3 x 1 + 1	8.0	54.0	100
0366 018	4 x 1 + 1	9.1	65.0	136
0366 021	6 x 1 + 1	9.7	86.0	165
0366 024	9 x 1 + 1	11.8	121.0	225
0366 016	13 x 1 + 1	12.8	167.0	290
0366 020	23 x 1 + 1	16.1	274.0	450
0366 003	2 x 1,5 + 1,5	9.0	60.0	126
0366 009	4 x 1,5 + 1,5	10.4	93.0	181
0366 010	6 x 1,5 + 1,5	11.2	124.0	225
0366 011	9 x 1,5 + 1,5	13.9	180.0	310

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm <sup>2</sup>	mm	kg/km	kg/km
0366 012	13 x 1,5 + 1,5	15.0	241.0	400
0366 005	2 x 2,5 + 2,5	9.9	92.0	165
0366 019	4 x 2,5 + 2,5	11.5	144.0	245
0366 004	6 x 2,5 + 2,5	12.5	199.0	315
0366 026	9 x 2,5 + 2,5	15.5	281.0	430
0366 036	2 x 4 + 4	11.6	140.0	235
0366 037	4 x 4 + 4	13.8	228.0	360
0366 035	6 x 4 + 4	14.9	308.0	460
0366 038	9 x 4 + 4	19.3	454.0	675

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0367 009	2 x 1 + 1	8.8	45.3	112
0367 011	3 x 1 + 1	9.4	57.0	130
0367 008	4 x 1 + 1	10.2	68.0	158
0367 010	6 x 1 + 1	10.9	90.0	192
0367 022	9 x 1 + 1	13.5	131.0	265
0367 015	13 x 1 + 1	14.5	173.0	335
0367 019	23 x 1 + 1	19.1	300.0	560
0367 001	2 x 1,5 + 1,5	9.4	62.0	133
0367 006	4 x 1,5 + 1,5	11.0	95.0	193
0367 023	6 x 1,5 + 1,5	11.8	126.0	240
0367 004	9 x 1,5 + 1,5	14.7	183.0	330

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0367 025	13 x 1,5 + 1,5	15.9	244.0	425
0367 013	2 x 2,5 + 2,5	10.3	93.0	173
0367 018	4 x 2,5 + 2,5	12.1	150.0	265
0367 012	6 x 2,5 + 2,5	13.1	201.0	330
0367 032	9 x 2,5 + 2,5	16.3	284.0	455
0367 037	2 x 4 + 4	12.5	147.0	260
0367 038	4 x 4 + 4	14.8	231.0	390
0367 036	6 x 4 + 4	16.1	312.0	495
0367 039	9 x 4 + 4	20.9	462.0	730

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0365 005	2 x 1 + 1	9.7	47.8	128
0365 008	3 x 1 + 1	10.4	59.0	147
0365 011	4 x 1 + 1	11.2	72.0	181
0365 007	6 x 1 + 1	12.2	98.0	225
0365 016	9 x 1 + 1	15.1	136.0	310
0365 015	13 x 1 + 1	16.3	179.0	390
0365 010	23 x 1 + 1	21.5	311.0	650
0365 001	2 x 1,5 + 1,5	10.3	64.0	150
0365 009	4 x 1,5 + 1,5	12.1	102.0	225
0365 003	6 x 1,5 + 1,5	13.1	134.0	275
0365 023	9 x 1,5 + 1,5	16.3	188.0	375

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0365 024	13 x 1,5 + 1,5	17.8	267.0	495
0365 022	2 x 2,5 + 2,5	11.2	95.0	191
0365 025	4 x 2,5 + 2,5	13.2	154.0	290
0365 004	6 x 2,5 + 2,5	14.3	205.0	360
0365 026	9 x 2,5 + 2,5	18.5	307.0	535
0365 018	2 x 4 + 4	13.4	150.0	280
0365 027	4 x 4 + 4	15.9	235.0	425
0365 028	6 x 4 + 4	17.5	333.0	555
0365 029	9 x 4 + 4	22.5	469.0	790

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnKGSLYkonożo-P; YnKGSLYkonożo-T

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YnKGSLYkonożo-P** (multipair) and **YnKGSLYkonożo-T** (multitriples) are overall shielded mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard.
- underground mines in workings of class A coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Paired or tripled structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - pairs – black and brown insulation and white pair number printed on it,
  - triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 – for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnKGS�Xkonożo-P**, **YnKGS�Xkonożo-T** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 300/300 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGS�Xkonożo-P**, **XnKGS�Xkonożo-T** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 300/300 V.



## YnKGSLYkonożo-P; YnKGSLYkonożo-T

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage U <sub>0</sub> /U	V	<b>300/300</b>		<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500		3000	3500	
Insulation resistance, minimum	MΩ·km	20		20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-24

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
0732 003	2 x 2 x 0,75 + 0,75	10.2	57	132
0732 004	4 x 2 x 0,75 + 0,75	11.6	89	186
0732 005	7 x 2 x 0,75 + 0,75	13.7	143	275
0732 006	12 x 2 x 0,75 + 0,75	17.2	243	425
0732 007	16 x 2 x 0,75 + 0,75	19.7	310	550
0732 008	18 x 2 x 0,75 + 0,75	20.6	343	600
0732 009	2 x 2 x 1 + 1	10.5	70	147
0732 010	4 x 2 x 1 + 1	12.1	116	220
0732 011	7 x 2 x 1 + 1	14.2	181	315
0732 012	12 x 2 x 1 + 1	18.3	306	515

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
0732 013	16 x 2 x 1 + 1	20.5	393	645
0732 014	2 x 2 x 1,5 + 1,5	12.3	103	200
0732 015	4 x 2 x 1,5 + 1,5	14.2	167	295
0732 016	7 x 2 x 1,5 + 1,5	16.8	262	435
0732 001	12 x 2 x 1,5 + 1,5	21.7	441	710
0732 017	2 x 2 x 2,5 + 2,5	13.7	155	265
0732 018	4 x 2 x 2,5 + 2,5	15.8	258	405
0732 019	7 x 2 x 2,5 + 2,5	19.4	431	645
0732 020	12 x 2 x 2,5 + 2,5	25.0	716	1050

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0442 011	2 x 2 x 0,75 + 0,75	11.6	61	155
0442 012	4 x 2 x 0,75 + 0,75	13.3	99	225
0442 013	7 x 2 x 0,75 + 0,75	15.7	150	325
0442 014	12 x 2 x 0,75 + 0,75	20.3	255	525
0442 015	16 x 2 x 0,75 + 0,75	22.8	324	650
0442 016	18 x 2 x 0,75 + 0,75	24.6	381	760
0442 001	2 x 2 x 1 + 1	12.0	78	176
0442 017	4 x 2 x 1 + 1	13.7	122	255
0442 018	7 x 2 x 1 + 1	16.2	188	370
0442 010	12 x 2 x 1 + 1	21.0	318	600

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0442 019	16 x 2 x 1 + 1	24.2	429	795
0442 006	2 x 2 x 1,5 + 1,5	13.0	105	215
0442 002	4 x 2 x 1,5 + 1,5	15.0	169	315
0442 020	7 x 2 x 1,5 + 1,5	18.4	282	500
0442 005	12 x 2 x 1,5 + 1,5	23.0	447	755
0442 021	2 x 2 x 2,5 + 2,5	14.4	158	280
0442 022	4 x 2 x 2,5 + 2,5	16.6	261	425
0442 023	7 x 2 x 2,5 + 2,5	20.4	435	680
0442 024	12 x 2 x 2,5 + 2,5	26.3	724	1100

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0884 004	2 x 2 x 0,75 + 0,75	13.0	69	185
0884 005	4 x 2 x 0,75 + 0,75	15.0	104	265
0884 006	7 x 2 x 0,75 + 0,75	18.4	174	415
0884 007	12 x 2 x 0,75 + 0,75	23.0	267	615
0884 008	16 x 2 x 0,75 + 0,75	26.5	363	820
0884 009	18 x 2 x 0,75 + 0,75	27.9	399	895
0884 010	2 x 2 x 1 + 1	13.4	82	205
0884 011	4 x 2 x 1 + 1	15.4	127	295
0884 012	7 x 2 x 1 + 1	18.9	213	460
0884 003	12 x 2 x 1 + 1	24.3	353	740

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0884 013	16 x 2 x 1 + 1	27.3	446	920
0884 001	2 x 2 x 1,5 + 1,5	14.4	110	240
0884 014	4 x 2 x 1,5 + 1,5	16.6	175	355
0884 015	7 x 2 x 1,5 + 1,5	20.4	291	565
0884 002	12 x 2 x 1,5 + 1,5	26.3	484	905
0884 016	2 x 2 x 2,5 + 2,5	15.7	162	310
0884 017	4 x 2 x 2,5 + 2,5	18.9	284	505
0884 018	7 x 2 x 2,5 + 2,5	22.5	444	750
0884 019	12 x 2 x 2,5 + 2,5	29.4	739	1240

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGSLYkonoyñ

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from - 30°C to + 70°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YKGSLYkonoyñ 150/250 V**, **YKGSLYkonoyñ 300/500 V** and **YKGSLYkonoyñ 0.6/1 kV** are overall shielded mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- insulated conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33, 37, 40, 48, 52, 56 and 61 conductors,
- cable core wrapped in polyester tape,
- inner PVC sheath,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YKGSXLKonoyñ** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXLKonoxn** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YKGSLYkonoyñ

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	19.5	13.3	7.98	4.95
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-22

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
150/250 V				
1744 001	2 x 1 + 1	9.6	47.6	141
1744 002	4 x 1 + 1	10.6	70	183
1744 003	6 x 1 + 1	11.2	91	215
1744 004	9 x 1 + 1	13.2	130	290
1744 005	13 x 1 + 1	14.0	171	350
1744 006	20 x 1 + 1	15.7	244	465
1744 007	2 x 1,5 + 1,5	10.5	65	177
1744 008	4 x 1,5 + 1,5	11.8	97	240
1744 009	6 x 1,5 + 1,5	12.6	133	290
1744 010	9 x 1,5 + 1,5	15.0	184	385

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
150/250 V				
1744 011	13 x 1,5 + 1,5	16.0	245	475
1744 012	2 x 2,5 + 2,5	11.4	96	225
1744 013	4 x 2,5 + 2,5	13.0	153	315
1744 014	6 x 2,5 + 2,5	13.8	204	385
1744 015	9 x 2,5 + 2,5	16.6	285	520
1744 016	2 x 4 + 4	12.9	148	310
1744 017	4 x 4 + 4	14.8	231	440
1744 018	6 x 4 + 4	15.9	312	540
1744 019	9 x 4 + 4	19.3	454	675

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
300/500 V				
1000 005	2 x 1 + 1	10.4	50	163
1000 009	4 x 1 + 1	11.7	73	215
1000 004	6 x 1 + 1	12.5	99	260
1000 010	9 x 1 + 1	14.8	135	340
1000 011	13 x 1 + 1	15.8	177	415
1000 012	20 x 1 + 1	18.5	268	580
1000 008	3 x 1,5 + 1,5	11.6	88	249
1000 013	4 x 1,5 + 1,5	12.5	103	260
1000 014	6 x 1,5 + 1,5	13.2	135	310
1000 015	9 x 1,5 + 1,5	15.8	186	415

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
300/500 V				
1000 016	13 x 1,5 + 1,5	17.1	264	525
1000 002	2 x 2,5 + 2,5	11.8	97	240
1000 017	4 x 2,5 + 2,5	13.5	155	335
1000 006	6 x 2,5 + 2,5	14.4	206	405
1000 003	9 x 2,5 + 2,5	17.6	305	565
1000 018	2 x 4 + 4	13.8	151	340
1000 019	4 x 4 + 4	15.9	235	480
1000 020	6 x 4 + 4	17.3	332	610
1000 021	9 x 4 + 4	21.5	464	855

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0,6/1 kV				
1311 010	2 x 1 + 1	11.3	52	187
1311 009	4 x 1 + 1	12.9	81	255
1311 002	6 x 1 + 1	13.7	103	295
1311 006	9 x 1 + 1	16.4	141	395
1311 007	13 x 1 + 1	17.8	200	500
1311 011	20 x 1 + 1	20.6	278	680
1311 012	2 x 1,5 + 1,5	11.8	69	215
1311 004	3 x 1,5 + 1,5	12.0	89	230
1311 005	4 x 1,5 + 1,5	13.5	107	295
1311 013	6 x 1,5 + 1,5	14.4	139	350

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
0,6/1 kV				
1311 003	9 x 1,5 + 1,5	17.6	209	490
1311 014	13 x 1,5 + 1,5	16.1	240	415
1311 008	18 x 1,5 + 1,5	17.8	317	530
1311 015	2 x 2,5 + 2,5	12.8	104	270
1311 016	4 x 2,5 + 2,5	14.6	159	370
1311 017	6 x 2,5 + 2,5	15.6	210	450
1311 018	9 x 2,5 + 2,5	19.6	312	650
1311 019	2 x 4 + 4	14.7	154	375
1311 020	4 x 4 + 4	17.2	255	545
1311 021	6 x 4 + 4	18.9	337	680

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YKGSLYkonoyńżo-P; YKGSLYkonoyńżo-T

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from - 30°C to + 70°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YKGSLYkonoyńżo-P** (multipair) and **YKGSLYkonoyńżo-T** (multitriples) are overall shielded mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a” degree explosion hazard.
- underground mines in workings of class A coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Paired or tripled structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - pairs – black and brown insulation and white pair number printed on it,
  - triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- inner PVC sheath,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YKGSXLkonoyńżo-P, YKGSXLkonoyńżo-T** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnKGSXLkonoxńżo-P, XnKGSXLkonoxńżo-T** - halogen free cables „reduced combustibility”, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YKGSLYkonoyńżo-P; YKGSLYkonoyńżo-T

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage U <sub>o</sub> /U	V	300/300		300/500	600/1000	
Voltage test	V rms	1500		3000	3500	
Insulation resistance, minimum	MΩ·km	20		20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
Conductor temperature limit in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-24

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1745 001	2 x 2 x 0,75 + 0,75	12.3	67	188
1745 002	4 x 2 x 0,75 + 0,75	13.7	100	250
1745 003	7 x 2 x 0,75 + 0,75	15.7	150	340
1745 004	12 x 2 x 0,75 + 0,75	19.6	252	525
1745 005	16 x 2 x 0,75 + 0,75	21.7	319	640
1745 006	18 x 2 x 0,75 + 0,75	22.6	352	700
1745 007	2 x 2 x 1 + 1	12.6	80	210
1745 008	4 x 2 x 1 + 1	14.1	123	280
1745 009	7 x 2 x 1 + 1	16.2	188	385
1745 010	12 x 2 x 1 + 1	20.3	315	600

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1745 011	16 x 2 x 1 + 1	22.5	401	740
1745 012	2 x 2 x 1,5 + 1,5	14.3	110	265
1745 013	4 x 2 x 1,5 + 1,5	16.2	173	365
1745 014	7 x 2 x 1,5 + 1,5	19.4	287	550
1745 015	12 x 2 x 1,5 + 1,5	24.3	472	855
1745 016	2 x 2 x 2,5 + 2,5	15.7	162	335
1745 017	4 x 2 x 2,5 + 2,5	18.4	282	515
1745 018	7 x 2 x 2,5 + 2,5	21.4	440	740
1745 019	12 x 2 x 2,5 + 2,5	27.0	728	1160

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1506 002	2 x 2 x 0,75 + 0,75	13.7	71	220
1506 003	4 x 2 x 0,75 + 0,75	15.3	106	290
1506 004	7 x 2 x 0,75 + 0,75	18.3	174	435
1506 005	12 x 2 x 0,75 + 0,75	22.3	264	620
1506 006	16 x 2 x 0,75 + 0,75	25.4	357	805
1506 007	18 x 2 x 0,75 + 0,75	26.6	392	875
1506 008	2 x 2 x 1 + 1	14.0	84	240
1506 009	4 x 2 x 1 + 1	15.7	129	320
1506 001	7 x 2 x 1 + 1	18.9	212	485
1506 010	12 x 2 x 1 + 1	23.0	327	700

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1506 011	16 x 2 x 1 + 1	26.2	440	910
1506 012	2 x 2 x 1,5 + 1,5	15.0	112	280
1506 013	4 x 2 x 1,5 + 1,5	17.2	192	405
1506 014	7 x 2 x 1,5 + 1,5	20.4	291	585
1506 015	12 x 2 x 1,5 + 1,5	25.6	480	910
1506 016	2 x 2 x 2,5 + 2,5	16.4	164	350
1506 017	4 x 2 x 2,5 + 2,5	19.2	286	540
1506 018	7 x 2 x 2,5 + 2,5	22.4	444	775
1506 019	12 x 2 x 2,5 + 2,5	28.3	735	1220

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1746 001	2 x 2 x 0,75 + 0,75	15.0	76	250
1746 002	4 x 2 x 0,75 + 0,75	17.2	127	355
1746 003	7 x 2 x 0,75 + 0,75	20.4	183	505
1746 004	12 x 2 x 0,75 + 0,75	25.6	300	770
1746 005	16 x 2 x 0,75 + 0,75	28.5	374	940
1746 006	18 x 2 x 0,75 + 0,75	30.3	410	1050
1746 007	2 x 2 x 1 + 1	15.4	89	270
1746 008	4 x 2 x 1 + 1	17.6	151	385
1746 009	7 x 2 x 1 + 1	20.9	222	550
1746 010	12 x 2 x 1 + 1	26.3	364	850

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1746 011	16 x 2 x 1 + 1	29.7	457	1080
1746 012	2 x 2 x 1,5 + 1,5	16.4	116	310
1746 013	4 x 2 x 1,5 + 1,5	19.2	200	470
1746 014	7 x 2 x 1,5 + 1,5	22.4	300	660
1746 015	12 x 2 x 1,5 + 1,5	28.3	495	1030
1746 016	2 x 2 x 2,5 + 2,5	18.3	186	420
1746 017	4 x 2 x 2,5 + 2,5	20.9	293	595
1746 018	7 x 2 x 2,5 + 2,5	25.1	477	905
1746 019	12 x 2 x 2,5 + 2,5	31.4	750	1380

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnHKGSly

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YnHKGSly 150/250 V**, **YnHKGSly 300/500 V** and **YnHKGSly 0,6/1 kV** are mining control cables with individually shielded wires intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations..

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificates No. 05/53/A1/2** and **05/53/A2/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- tinned copper wire braid shield of coverage bigger than 70% on insulated conductors (bare copper wire braid available on request),
- shielded conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33, 37, 40, 48, 52, 56 and 61 conductors,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnHKGSly** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnHKGSly** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## YnHKGSly

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	19.5	13.3	7.98	4.95
Operating voltage U <sub>o</sub> /U	V	<b>150/250</b>		<b>300/500</b>	<b>600/1000</b>
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-22

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index
150/250 V	mm <sup>2</sup>	mm	kg/km
0925 004	2 x 1 + 1	8.5	101
0925 015	4 x 1 + 1	9.9	152
0925 013	6 x 1 + 1	10.7	192
0925 014	9 x 1 + 1	13.3	275
0925 016	13 x 1 + 1	14.4	355
0925 017	23 x 1 + 1	18.9	590
0925 003	26 x 1 + 1	19.2	650
0925 008	2 x 1,5 + 1,5	9.6	129
0925 018	4 x 1,5 + 1,5	11.3	199
0925 007	6 x 1,5 + 1,5	12.2	255
0925 019	9 x 1,5 + 1,5	15.3	360

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index
300/500 V	mm <sup>2</sup>	mm	kg/km
1015 004	2 x 1 + 1	9.3	100
1015 007	4 x 1 + 1	11.0	176
1015 021	6 x 1 + 1	11.9	225
1015 003	9 x 1 + 1	14.9	315
1015 029	13 x 1 + 1	16.1	410
1015 010	23 x 1 + 1	21.0	680
1015 008	24 x 1 + 1	21.8	705
1015 017	36 x 1 + 1	23.1	840
1015 022	2 x 1,5 + 1,5	9.4	110
1015 009	3 x 1,5 + 1,5	10.3	150
1015 023	4 x 1,5 + 1,5	11.2	180
1015 012	6 x 1,5 + 1,5	12.2	230
1015 013	9 x 1,5 + 1,5	15.7	360
1015 028	11 x 1,5 + 1,5	16.2	430
1015 014	13 x 1,5 + 1,5	17.1	490
1015 001	18 x 1,5 + 1,5	19.0	620

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index
0.6/1 kV	mm <sup>2</sup>	mm	kg/km
1044 008	2 x 1 + 1	9.5	110
1044 018	3 x 1 + 1	10.1	130
1044 012	4 x 1 + 1	11.0	255
1044 010	6 x 1 + 1	12.0	210
1044 014	9 x 1 + 1	15.5	300
1044 015	13 x 1 + 1	16.8	390
1044 019	18 x 1 + 1	19.5	550
1044 016	23 x 1 + 1	24.1	810
1044 004	29 x 1 + 1	24.8	890
1044 020	2 x 1,5 + 1,5	9.8	120
1044 021	3 x 1,5 + 1,5	11.3	170
1044 007	4 x 1,5 + 1,5	12.3	210
1044 005	6 x 1,5 + 1,5	13.0	250

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index
150/250 V	mm <sup>2</sup>	mm	kg/km
0925 011	13 x 1,5 + 1,5	16.6	470
0925 005	2 x 2,5 + 2,5	10.4	168
0925 006	4 x 2,5 + 2,5	12.4	265
0925 020	6 x 2,5 + 2,5	13.4	340
0925 021	9 x 2,5 + 2,5	16.9	485
0925 022	2 x 4 + 4	12.2	240
0925 023	4 x 4 + 4	14.5	380
0925 024	6 x 4 + 4	15.8	495
0925 025	9 x 4 + 4	20.5	725

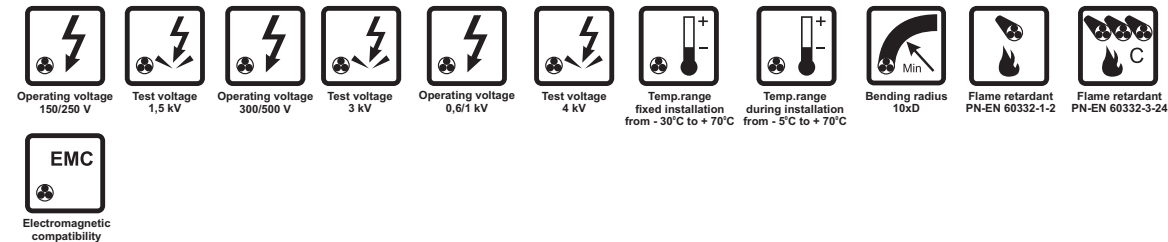
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index
300/500 V	mm <sup>2</sup>	mm	kg/km
1015 018	23 x 1,5 + 1,5	23.1	850
1015 024	26 x 1,5 + 1,5	23.6	930
1015 025	29 x 1,5 + 1,5	24.5	1030
1015 026	32 x 1,5 + 1,5	25.4	1120
1015 030	36 x 1,5 + 1,5	26.4	1250
1015 031	2 x 2,5 + 2,5	10.7	160
1015 032	3 x 2,5 + 2,5	11.2	200
1015 020	4 x 2,5 + 2,5	12.5	250
1015 027	6 x 2,5 + 2,5	13.6	340
1015 033	9 x 2,5 + 2,5	17.3	480
1015 034	2 x 4 + 4	13.0	260
1015 035	4 x 4 + 4	15.6	410
1015 036	6 x 4 + 4	17.0	535
1015 037	9 x 4 + 4	21.7	700
1015 038	11 x 4 + 4	22.1	760
1015 039	13 x 4 + 4	23.4	950

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index
0.6/1 kV	mm <sup>2</sup>	mm	kg/km
1044 006	9 x 1,5 + 1,5	16.5	360
1044 017	13 x 1,5 + 1,5	18.3	500
1044 022	18 x 1,5 + 1,5	20.4	660
1044 003	2 x 2,5 + 2,5	11.7	194
1044 001	3 x 2,5 + 2,5	12.4	215
1044 023	4 x 2,5 + 2,5	13.5	360
1044 013	6 x 2,5 + 2,5	14.3	350
1044 024	9 x 2,5 + 2,5	18.6	490
1044 025	13 x 2,5 + 2,5	20.2	620
1044 026	2 x 4 + 4	13.9	280
1044 027	4 x 4 + 4	16.7	445
1044 028	6 x 4 + 4	18.6	595
1044 029	9 x 4 + 4	24.1	870

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnHKGSLYżo-P; YnHKGSLYżo-T

### MINING CONTROL CABLES



### APPLICATIONS

**YnHKGSLYżo-P** are multipair, pair and overall shielded and **YnHKGSLYżo-T** are multitruple, triple and overall shielded, mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Shielded pair or triple structure substantially decreases mutual influence between signals transmitted along the cable.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificates No. 05/53/A1/2** and **05/53/A2/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - pairs – black and brown insulation and white pair number printed on it,
  - triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- tinned copper wire braid shield of coverage bigger than 70% on pairs or triples (bare copper wire braid available on request),
- shielded pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnHKGSXLXżo-P, YnHKGSXLXżo-T** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 300/300 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnHKGSXLXżo-P, XnHKGSXLXżo-T** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 300/300 V.



## YnHKGSŁYżo-P; YnHKGSŁYżo-T

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage U <sub>o</sub> /U	V	<b>300/300</b>		<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500		3000	3500	
Insulation resistance, minimum	MΩ·km	20		20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions	from - 30 to + 70°C	Cable combustibility	flame retardant
in short-circuit	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-24

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1317 005	2 x 2 x 0,75 + 0,75	10.6	61	138
1317 006	4 x 2 x 0,75 + 0,75	12.1	114	215
1317 007	7 x 2 x 0,75 + 0,75	14.4	194	325
1317 008	12 x 2 x 0,75 + 0,75	18.5	327	530
1317 009	16 x 2 x 0,75 + 0,75	20.9	434	675
1317 010	18 x 2 x 0,75 + 0,75	21.9	488	750
1317 003	2 x 2 x 1 + 1	10.9	74	155
1317 011	4 x 2 x 1 + 1	12.5	138	245
1317 012	7 x 2 x 1 + 1	14.9	234	375
1317 013	12 x 2 x 1 + 1	19.2	394	605

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1317 014	16 x 2 x 1 + 1	21.6	522	775
1317 001	2 x 2 x 1,5 + 1,5	12.6	103	205
1317 015	4 x 2 x 1,5 + 1,5	14.6	192	325
1317 016	7 x 2 x 1,5 + 1,5	17.4	326	500
1317 017	12 x 2 x 1,5 + 1,5	22.6	549	820
1317 004	2 x 2 x 2,5 + 2,5	14.0	156	270
1317 018	4 x 2 x 2,5 + 2,5	16.2	288	435
1317 019	7 x 2 x 2,5 + 2,5	19.9	486	705
1317 020	12 x 2 x 2,5 + 2,5	25.7	816	1150

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1662 005	2 x 2 x 0,75 + 0,75	11.9	65	162
1662 006	4 x 2 x 0,75 + 0,75	13.8	123	255
1662 007	7 x 2 x 0,75 + 0,75	16.4	210	385
1662 008	12 x 2 x 0,75 + 0,75	21.2	355	625
1662 009	16 x 2 x 0,75 + 0,75	24.4	470	825
1662 010	18 x 2 x 0,75 + 0,75	25.6	528	910
1662 002	2 x 2 x 1 + 1	12.3	78	179
1662 011	4 x 2 x 1 + 1	14.2	147	285
1662 012	7 x 2 x 1 + 1	16.9	250	435
1662 013	12 x 2 x 1 + 1	21.9	422	705

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
1662 014	16 x 2 x 1 + 1	25.2	559	930
1662 003	2 x 2 x 1,5 + 1,5	13.3	106	220
1662 001	4 x 2 x 1,5 + 1,5	15.4	197	345
1662 015	7 x 2 x 1,5 + 1,5	18.9	334	555
1662 016	12 x 2 x 1,5 + 1,5	24.3	563	900
1662 004	2 x 2 x 2,5 + 2,5	14.6	158	285
1662 017	4 x 2 x 2,5 + 2,5	17.0	293	460
1662 018	7 x 2 x 2,5 + 2,5	20.9	494	745
1662 019	12 x 2 x 2,5 + 2,5	27.0	830	1210

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1752 005	2 x 2 x 0,75 + 0,75	13.3	70	188
1752 006	4 x 2 x 0,75 + 0,75	15.4	132	295
1752 007	7 x 2 x 0,75 + 0,75	18.9	226	470
1752 008	12 x 2 x 0,75 + 0,75	24.3	383	755
1752 009	16 x 2 x 0,75 + 0,75	27.5	508	965
1752 019	18 x 2 x 0,75 + 0,75	29.3	570	1100
1752 001	2 x 2 x 1 + 1	13.6	83	205
1752 010	4 x 2 x 1 + 1	15.8	156	325
1752 011	7 x 2 x 1 + 1	19.4	266	520
1752 002	12 x 2 x 1 + 1	25.0	450	840

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
1752 012	16 x 2 x 1 + 1	28.3	597	1080
1752 003	2 x 2 x 1,5 + 1,5	14.6	110	245
1752 013	4 x 2 x 1,5 + 1,5	17.0	206	390
1752 014	7 x 2 x 1,5 + 1,5	20.9	350	625
1752 015	12 x 2 x 1,5 + 1,5	27.0	590	1020
1752 004	2 x 2 x 2,5 + 2,5	16.0	163	315
1752 016	4 x 2 x 2,5 + 2,5	19.1	302	525
1752 017	7 x 2 x 2,5 + 2,5	22.9	510	820
1752 018	12 x 2 x 2,5 + 2,5	30.1	858	1370

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnHKGSLYkono

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from - 30°C to + 70°C



Temp. range  
during installation  
from - 5°C to + 70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YnHKGSLYkono 150/250 V**, **YnHKGSLYkono 300/500 V** and **YnHKGSLYkono 0,6/1 kV** are overall shielded, mining control cables with individually shielded wires intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificates No. 05/53/A1/2** and **05/53/A2/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- tinned copper wire braid shield of coverage bigger than 70% on insulated conductors (bare copper wire braid available on request),
- shielded conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnHKGSLSXkono** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnHKGSLSXkono** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YnHKGSLYkono

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4</b>
DC conductor resistance at 20°C, maximum	Ω/km	19.5	13.3	7.98	4.95
Operating voltage Uo/U	V	<b>150/250</b>	<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500	3000	4000	
Insulation resistance, minimum	MΩ·km	20	20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-22

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Product No.
	mm <sup>2</sup>	mm	kg/km	kg/km
0894 006	2 x 1 + 1	9.0	76	140
0894 007	4 x 1 + 1	10.4	113	195
0894 010	6 x 1 + 1	11.2	148	240
0894 005	9 x 1 + 1	13.9	209	330
0894 015	13 x 1 + 1	15.0	278	415
0894 016	20 x 1 + 1	17.5	619	860
0894 001	2 x 1,5 + 1,5	10.1	102	179
0894 008	4 x 1,5 + 1,5	11.8	153	255
0894 003	6 x 1,5 + 1,5	12.8	205	320
0894 004	9 x 1,5 + 1,5	15.9	283	435
0894 017	13 x 1,5 + 1,5	17.4	394	565

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Product No.
	mm <sup>2</sup>	mm	kg/km	kg/km
0894 011	2 x 2,5 + 2,5	10.9	147	235
0894 009	4 x 2,5 + 2,5	12.9	224	340
0894 018	6 x 2,5 + 2,5	14.0	294	420
0894 019	9 x 2,5 + 2,5	17.7	423	595
0894 012	18 x 2,5 + 2,5	21.6	701	920
0894 013	23 x 2,5 + 2,5	25.7	903	1200
0894 020	2 x 4 + 4	12.8	221	330
0894 021	4 x 4 + 4	15.1	329	475
0894 014	6 x 4 + 4	16.4	433	595
0894 022	9 x 4 + 4	21.3	618	855

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Product No.
	mm <sup>2</sup>	mm	kg/km	kg/km
1310 007	2 x 1 + 1	9.9	82	160
1310 008	4 x 1 + 1	11.5	122	225
1310 009	6 x 1 + 1	12.5	164	280
1310 010	9 x 1 + 1	15.5	226	380
1310 011	13 x 1 + 1	16.7	301	480
1310 012	20 x 1 + 1	20.0	653	1020
1310 002	2 x 1,5 + 1,5	10.5	105	189
1310 013	4 x 1,5 + 1,5	12.4	161	275
1310 004	6 x 1,5 + 1,5	13.4	211	335
1310 014	9 x 1,5 + 1,5	16.7	292	460

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Product No.
	mm <sup>2</sup>	mm	kg/km	kg/km
1310 005	13 x 1,5 + 1,5	18.7	406	620
1310 006	2 x 2,5 + 2,5	11.4	150	245
1310 015	4 x 2,5 + 2,5	13.5	229	360
1310 016	6 x 2,5 + 2,5	14.6	300	440
1310 017	9 x 2,5 + 2,5	18.9	432	640
1310 018	2 x 4 + 4	13.6	227	355
1310 019	4 x 4 + 4	16.2	338	515
1310 003	6 x 4 + 4	17.8	462	660
1310 020	9 x 4 + 4	22.9	637	925

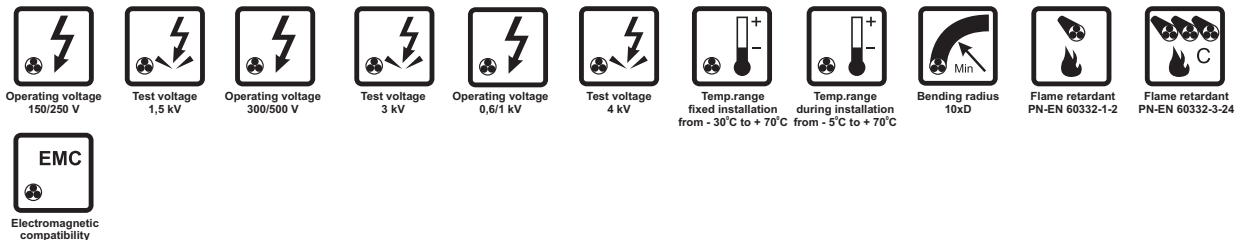
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Product No.
	mm <sup>2</sup>	mm	kg/km	kg/km
1255 003	2 x 1 + 1	10.7	88	181
1255 004	4 x 1 + 1	12.7	135	265
1255 008	6 x 1 + 1	13.7	176	320
1255 009	9 x 1 + 1	17.3	260	455
1255 010	13 x 1 + 1	19.1	341	585
1255 011	20 x 1 + 1	22.1	687	1170
1255 005	2 x 1,5 + 1,5	11.4	111	215
1255 012	4 x 1,5 + 1,5	13.5	171	310
1255 013	6 x 1,5 + 1,5	14.6	223	380
1255 001	9 x 1,5 + 1,5	18.9	327	555

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Product No.
	mm <sup>2</sup>	mm	kg/km	kg/km
1255 014	13 x 1,5 + 1,5	20.4	431	695
1255 015	18 x 1,5 + 1,5	22.1	522	800
1255 016	2 x 2,5 + 2,5	12.3	160	275
1255 007	4 x 2,5 + 2,5	14.6	238	395
1255 017	6 x 2,5 + 2,5	15.8	312	485
1255 006	9 x 2,5 + 2,5	20.5	451	705
1255 018	2 x 4 + 4	14.5	234	380
1255 019	4 x 4 + 4	17.5	364	575
1255 020	6 x 4 + 4	19.4	476	730
1255 021	9 x 4 + 4	25.1	680	1050

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YnHKGSLYkonożo-P; YnHKGSLYkonożo-T

### MINING CONTROL CABLES



### APPLICATIONS

**YnHKGSLYkonożo-P** are multipair, pair and overall shielded and **YnHKGSLYkonożo-T** are multitruple, triple and overall shielded, mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Shielded pair or triple structure substantially decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificates No. 05/53/A1/2** and **05/53/A2/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - pairs – black and brown insulation and white pair number printed on it,
  - triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- tinned copper wire braid shield of coverage bigger than 70% on pairs or triples (bare copper wire braid available on request),
- shielded pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 – for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YnHKGSLYkonożo-P, YnHKGSLYkonożo-T** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 300/300 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnHKGSLYkonożo-P, XnHKGSLYkonożo-T** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 300/300 V.

## YnHKGSLYkonożo-P; YnHKGSLYkonożo-T

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage Uo/U	V	<b>300/300</b>		<b>300/500</b>	<b>600/1000</b>	
Voltage test	V rms	1500		3000	3500	
Insulation resistance, minimum	MΩ·km	20		20	100	

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-24

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1749 001	2 x 2 x 0,75 + 0,75	11.1	84	164
1749 002	4 x 2 x 0,75 + 0,75	12.7	146	250
1749 003	7 x 2 x 0,75 + 0,75	15.0	234	370
1749 004	12 x 2 x 0,75 + 0,75	19.3	398	600
1749 005	16 x 2 x 0,75 + 0,75	21.7	515	760
1749 006	18 x 2 x 0,75 + 0,75	22.7	573	835
1749 007	2 x 2 x 1 + 1	11.4	98	180
1749 008	4 x 2 x 1 + 1	13.1	171	280
1749 009	7 x 2 x 1 + 1	15.5	275	415
1749 010	12 x 2 x 1 + 1	20.0	467	680

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm <sup>2</sup>	mm	kg/km	kg/km
1749 011	16 x 2 x 1 + 1	22.4	607	860
1749 012	2 x 2 x 1,5 + 1,5	13.2	137	240
1749 013	4 x 2 x 1,5 + 1,5	15.2	233	365
1749 014	7 x 2 x 1,5 + 1,5	18.6	393	590
1749 015	12 x 2 x 1,5 + 1,5	23.8	637	930
1749 016	2 x 2 x 2,5 + 2,5	14.5	194	310
1749 017	4 x 2 x 2,5 + 2,5	17.0	350	500
1749 018	7 x 2 x 2,5 + 2,5	20.7	563	785
1749 019	12 x 2 x 2,5 + 2,5	26.7	942	1280

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0444 008	2 x 2 x 0,75 + 0,75	12.5	97	195
0444 004	4 x 2 x 0,75 + 0,75	14.4	161	290
0444 009	7 x 2 x 0,75 + 0,75	17.2	273	450
0444 010	12 x 2 x 0,75 + 0,75	22.0	437	710
0444 011	16 x 2 x 0,75 + 0,75	25.4	589	945
0444 012	18 x 2 x 0,75 + 0,75	26.6	654	1040
0444 005	2 x 2 x 1 + 1	12.8	111	215
0444 013	4 x 2 x 1 + 1	14.8	186	325
0444 014	7 x 2 x 1 + 1	17.7	315	500
0444 002	12 x 2 x 1 + 1	22.7	507	790

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm <sup>2</sup>	mm	kg/km	kg/km
0444 015	16 x 2 x 1 + 1	26.2	682	1050
0444 006	2 x 2 x 1,5 + 1,5	13.9	142	255
0444 016	4 x 2 x 1,5 + 1,5	16.0	240	390
0444 017	7 x 2 x 1,5 + 1,5	19.7	406	625
0444 018	12 x 2 x 1,5 + 1,5	25.3	681	1020
0444 007	2 x 2 x 2,5 + 2,5	15.2	199	325
0444 019	4 x 2 x 2,5 + 2,5	17.8	358	525
0444 020	7 x 2 x 2,5 + 2,5	21.7	575	825
0444 021	12 x 2 x 2,5 + 2,5	28.0	964	1350

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0886 007	2 x 2 x 0,75 + 0,75	13.9	106	230
0886 008	4 x 2 x 0,75 + 0,75	16.0	176	340
0886 009	7 x 2 x 0,75 + 0,75	19.7	298	540
0886 010	12 x 2 x 0,75 + 0,75	25.3	501	875
0886 011	16 x 2 x 0,75 + 0,75	28.5	644	1100
0886 012	18 x 2 x 0,75 + 0,75	30.3	715	1240
0886 003	2 x 2 x 1 + 1	14.2	120	245
0886 013	4 x 2 x 1 + 1	16.4	201	370
0886 014	7 x 2 x 1 + 1	20.2	341	595
0886 001	12 x 2 x 1 + 1	26.0	572	960

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm <sup>2</sup>	mm	kg/km	kg/km
0886 015	16 x 2 x 1 + 1	29.7	737	1240
0886 004	2 x 2 x 1,5 + 1,5	15.2	151	285
0886 016	4 x 2 x 1,5 + 1,5	17.8	272	455
0886 017	7 x 2 x 1,5 + 1,5	21.7	431	705
0886 018	12 x 2 x 1,5 + 1,5	28.0	724	1150
0886 005	2 x 2 x 2,5 + 2,5	16.6	208	360
0886 019	4 x 2 x 2,5 + 2,5	19.9	375	600
0886 020	7 x 2 x 2,5 + 2,5	24.3	623	955
0886 006	12 x 2 x 2,5 + 2,5	31.1	1006	1520

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## YHKGSLYkonoyńżo-P; YHKGSLYkonoyńżo-T

### MINING CONTROL CABLES



Operating voltage  
150/250 V



Test voltage  
1,5 kV



Operating voltage  
300/500 V



Test voltage  
3 kV



Operating voltage  
0,6/1 kV



Test voltage  
4 kV



Temp. range  
fixed installation  
from -30°C to +70°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
10xD



Flame retardant  
PN-EN 60332-1-2



Flame retardant  
PN-EN 60332-3-24



EMC  
Electromagnetic  
compatibility

### APPLICATIONS

**YHKGSLYkonoyńżo-P** are multipair, pair and overall shielded and **YHKGSLYkonoyńżo-T** are multitruple, triple and overall shielded, mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:

- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a”, „b” or „c” degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a”, „b”, or „c” degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

Shielded pair or triple structure substantially decreases mutual influence between signals transmitted along the cable.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cable inner sheath offers enhanced protection against mechanical damage.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificates No. 05/53/A1/2** and **05/53/A2/2** issued by **TI EMAG Institute**.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  - pairs – black and brown insulation and white pair number printed on it,
  - triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- tinned copper wire braid shield of coverage bigger than 70% on pairs or triples (bare copper wire braid available on request),
- shielded pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- inner PVC sheath,
- tinned copper wire braid shield of coverage bigger than 70%,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 – for intrinsically safe circuits), other colours also available.

### AVAILABLE UPON REQUEST

**YHKGSLXkonoyńżo-P**. **YHKGSLXkonoyńżo-T** - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

**XnHKGSLXkonoxńżo-P**. **XnHKGSLXkonoxńżo-T** - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 150/250 V.

## YHKGSLYkononynżo-P; YHKGSLYkononynżo-T

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0
Operating voltage U <sub>o</sub> /U	V	<b>300/300</b>		<b>300/500</b>		<b>600/1000</b>
Voltage test	V rms	1500		3000		3500
Insulation resistance, minimum	MΩ·km	20		20		100

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	WT-TK-24

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1246 002	2 x 2 x 0,75 + 0,75	13.1	94	225
1246 003	4 x 2 x 0,75 + 0,75	14.7	153	310
1246 004	7 x 2 x 0,75 + 0,75	17.2	257	455
1246 005	12 x 2 x 0,75 + 0,75	21.3	407	690
1246 006	16 x 2 x 0,75 + 0,75	24.3	547	900
1246 007	18 x 2 x 0,75 + 0,75	25.3	606	985
1246 001	2 x 2 x 1 + 1	13.5	108	245
1246 008	4 x 2 x 1 + 1	15.1	178	340
1246 009	7 x 2 x 1 + 1	17.7	299	505
1246 010	12 x 2 x 1 + 1	22.0	476	770

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1246 011	16 x 2 x 1 + 1	25.0	639	1010
1246 012	2 x 2 x 1,5 + 1,5	15.2	144	305
1246 013	4 x 2 x 1,5 + 1,5	17.4	256	455
1246 014	7 x 2 x 1,5 + 1,5	20.6	402	675
1246 015	12 x 2 x 1,5 + 1,5	26.0	671	1060
1246 016	2 x 2 x 2,5 + 2,5	16.5	201	380
1246 017	4 x 2 x 2,5 + 2,5	19.4	359	600
1246 018	7 x 2 x 2,5 + 2,5	22.7	572	875
1246 019	12 x 2 x 2,5 + 2,5	29.1	953	1420

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1732 004	2 x 2 x 0,75 + 0,75	14.5	103	260
1732 005	4 x 2 x 0,75 + 0,75	16.4	167	360
1732 006	7 x 2 x 0,75 + 0,75	19.6	282	550
1732 007	12 x 2 x 0,75 + 0,75	24.6	469	855
1732 008	16 x 2 x 0,75 + 0,75	27.4	600	1060
1732 009	18 x 2 x 0,75 + 0,75	28.6	665	1160
1732 001	2 x 2 x 1 + 1	14.8	118	280
1732 010	4 x 2 x 1 + 1	16.8	193	395
1732 011	7 x 2 x 1 + 1	20.1	324	600
1732 012	12 x 2 x 1 + 1	25.3	540	940

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1732 013	16 x 2 x 1 + 1	28.2	693	1170
1732 002	2 x 2 x 1,5 + 1,5	15.9	148	320
1732 014	4 x 2 x 1,5 + 1,5	18.6	264	500
1732 015	7 x 2 x 1,5 + 1,5	21.7	415	715
1732 016	12 x 2 x 1,5 + 1,5	27.3	692	1130
1732 003	2 x 2 x 2,5 + 2,5	17.4	222	415
1732 017	4 x 2 x 2,5 + 2,5	20.2	367	630
1732 018	7 x 2 x 2,5 + 2,5	24.3	607	965
1732 019	12 x 2 x 2,5 + 2,5	30.4	975	1500

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1733 004	2 x 2 x 0,75 + 0,75	15.9	112	295
1733 005	4 x 2 x 0,75 + 0,75	18.6	200	450
1733 006	7 x 2 x 0,75 + 0,75	21.7	307	635
1733 007	12 x 2 x 0,75 + 0,75	27.3	512	990
1733 008	16 x 2 x 0,75 + 0,75	30.9	655	1260
1733 009	18 x 2 x 0,75 + 0,75	32.7	728	1410
1733 001	2 x 2 x 1 + 1	16.2	127	315
1733 010	4 x 2 x 1 + 1	19.0	225	485
1733 011	7 x 2 x 1 + 1	22.2	350	685
1733 012	12 x 2 x 1 + 1	28.0	583	1080

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1733 013	16 x 2 x 1 + 1	31.7	748	1370
1733 002	2 x 2 x 1,5 + 1,5	17.4	174	375
1733 014	4 x 2 x 1,5 + 1,5	20.2	281	560
1733 015	7 x 2 x 1,5 + 1,5	24.3	463	850
1733 016	12 x 2 x 1,5 + 1,5	30.4	735	1300
1733 003	2 x 2 x 2,5 + 2,5	19.2	233	475
1733 017	4 x 2 x 2,5 + 2,5	21.9	384	690
1733 018	7 x 2 x 2,5 + 2,5	26.3	634	1070
1733 019	12 x 2 x 2,5 + 2,5	33.7	1052	1710

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## HTKSH, HTKSHekw

### HALOGEN FREE TELECOMMUNICATION SWITCHBOARD CABLES



## APPLICATIONS

**HTKSH** and **HTKSHekw** halogen free cables are intended for interconnections between switching and transmission equipment, for analogue or digital data transmission in industrial electronics and control applications all in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

Halogen free cables are applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

Cable circuits are protected by an overall electrostatic shield (**ekw**) against external electric field interferences.

The cables are suitable for fixed indoor installations.

## CONSTRUCTION

- bare annealed copper single wire round conductors,
- halogen free compound insulation - colours in accordance with PN-92/T-90321 standard,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core wrapped in a polyester tape,
- **HTKSHekw** - overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire,
- red cable sheath made of halogen free compound type HM2 according to EN 50290-2-27 and VDE 0250-214 standard.



## HTKSH, HTKSHekw

### CHARACTERISTICS

Cable type		HTKSH				HTKSHekw				
		0,5	0,8	1,0	1,5	0,5	0,8	1,0	1,5	
Conductor diameter	mm	0,5	0,8	1,0	1,5	0,5	0,8	1,0	1,5	
DC loop resistance at 20°C, maximum	Ω/km	195.6	75	48	24.0	195.6	75	48	24.0	
Mutual capacitance at 1 kHz	maximum	nF/km	120	120	120	120	200	200	200	200
	average	nF/km	60	60	70	70	90	90	130	130

Operating voltage	240 V	Operating temperature range during operation	from - 30 to + 80°C
Voltage test	1500 V rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	500 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Reference standards	AT-603-0417/2014, WT-TK-4
conductivity, approximate	0.4 μS/mm		
Smoke density per	PN-EN 61034-2, IEC 61034-2		
light transmittance, minimum	70%		

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
HTKSH				
0019 015	1 x 2 x 0,5	3.2	3.8	13.5
0019 009	2 x 2 x 0,5	4.4	7.7	22.5
0019 010	3 x 2 x 0,5	4.6	11.5	28.0
0019 012	4 x 2 x 0,5	5.0	15.4	34.5
0019 008	1 x 2 x 0,8	4.2	9.6	24.5
0019 006	1 x 4 x 0,8	4.8	19.2	38.5
0019 002	2 x 2 x 0,8	6.1	19.2	45.0
0019 005	3 x 2 x 0,8	6.5	28.8	57.0
0019 007	4 x 2 x 0,8	7.1	38.4	72.0
0019 001	1 x 2 x 1,0	4.6	15.4	32.0
0019 003	2 x 2 x 1,0	6.8	30.7	58.0
0019 004	1 x 2 x 1,5	5.4	33.8	51.0

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
HTKSHekw				
0533 008	2 x 2 x 0,5	4.6	8.9	25.0
0533 009	3 x 2 x 0,5	4.8	12.7	31.0
0533 002	1 x 2 x 0,8	4.4	10.8	27.0
0533 003	1 x 4 x 0,8	5.0	20.4	41.0
0533 010	2 x 2 x 0,8	6.3	20.4	46.0
0533 004	3 x 2 x 0,8	6.7	30.0	60.0
0533 006	4 x 2 x 0,8	7.3	39.6	76.0
0533 005	5 x 2 x 0,8	8.2	53.0	93.0
0533 001	1 x 2 x 1,0	4.8	16.6	33.5
0533 007	2 x 2 x 1,0	7.0	31.9	60.0
0533 016	1 x 2 x 1,5	5.6	35.0	55.0

Other diameters and pair counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**HSLH-JZ 300/500 V, HSLH-OZ 300/500 V  
HSLH-JB 300/500 V, HSLH-OB 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



Operating voltage  
300/500 V



Test voltage  
3 kV



Temp. range  
fixed installation  
from -40°C to +80°C



Temp. range  
during installation  
from -5°C to +70°C



Bending radius  
7,5xD



High  
flexibility



Flame retardant  
PN-EN 60332-1-2



Indoor  
application



Halogen-free



Low smoke  
density



Non-toxic



Non-corrosive

**APPLICATIONS**

**HSLH-JZ 300/500 V, HSLH-OZ 300/500 V, HSLH-JB 300/500 V** and **HSLH-OB 300/500 V** are flexible cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR), identification colour code:
  - HSLH-OZ 300/500 V** - black and white conductor number printed on it,
  - HSLH-OB 300/500 V** - colours in accordance with PN-HD 308 standard,
  - green-yellow protective conductor located in the outer layer in **HSLH-JZ 300/500 V** and **HSLH-JB 300/500 V** cable,
- insulated conductors laid-up in layers,
- cable sheath made of halogen free compound (HFFR), grey (RAL 7001), other colours also available.

**HSLH-JZ 300/500 V, HSLH-OZ 300/500 V  
HSLH-JB 300/500 V, HSLH-OB 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Corrosivity of emitted gases per IEC 60754-2	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	3.0 kV rms	pH appr.	6.8
Insulation resistance, minimum	20 MΩ·km	conductivity appr.	0.4 μS/mm
Conductor temperature limit in work conditions at short-circuit	+ 70°C + 150°C	Smoke density light transmittance, minimum	PN-EN 61034-2, IEC 61034-2 70 %
Operating temperature range for fixed installation for movable installation	from - 40 to + 80°C from - 5 to + 70°C	Cable combustibility	flame retardant
Minimum bending radius	7.5 x cable diameter	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
<b>HSLH-JZ 300/500 V</b>				
1787 001	2x0,5	4.8	9.6	36
1787 002	3x0,5	5.1	14.4	43
1787 003	4x0,5	5.5	19.2	51
1787 004	5x0,5	6.2	24.0	65
1787 005	6x0,5	6.7	28.8	76
1787 006	7x0,5	6.7	33.6	79
1787 007	8x0,5	7.2	38.4	90
1787 008	10x0,5	8.3	48.0	109
1787 009	12x0,5	8.6	57.6	123
1787 010	14x0,5	9.2	67.2	142
1787 011	16x0,5	9.7	76.8	160
1787 012	18x0,5	10.2	86.4	177
1787 013	20x0,5	10.7	96.0	196
1787 014	21x0,5	10.7	100.8	198
1787 015	27x0,5	12.3	129.6	251
1787 016	30x0,5	12.7	144.0	273
1787 017	36x0,5	13.7	172.8	322
1787 018	40x0,5	14.2	192.0	350
1787 019	44x0,5	15.5	211.2	390
1787 020	48x0,5	15.8	230.4	417
1787 021	52x0,5	16.2	249.6	446
1787 022	56x0,5	16.7	268.8	477
1787 023	61x0,5	17.2	292.8	511
1787 024	2x0,75	5.2	14.4	44
1787 025	3x0,75	5.4	21.6	51
1787 026	4x0,75	6.1	28.8	65
1787 027	5x0,75	6.6	36.0	79
1787 028	6x0,75	7.2	43.2	93
1787 029	7x0,75	7.2	50.4	97
1787 030	8x0,75	7.7	57.6	111
1787 031	10x0,75	9.2	72.0	141
1787 032	12x0,75	9.5	86.4	159
1787 033	14x0,75	10.0	100.8	179

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1787 034	16x0,75	10.5	115.2	201
1787 035	18x0,75	11.1	129.6	225
1787 036	20x0,75	11.6	144.0	248
1787 037	21x0,75	11.6	151.2	252
1787 038	27x0,75	13.4	194.4	320
1787 039	30x0,75	13.8	216.0	348
1787 040	36x0,75	14.9	259.2	412
1787 041	40x0,75	15.7	288.0	457
1787 042	44x0,75	16.9	316.8	500
1787 043	48x0,75	17.2	345.6	536
1787 044	52x0,75	17.7	374.4	574
1787 045	56x0,75	18.4	403.2	624
1787 046	61x0,75	19.0	439.2	670
1787 047	2x1,0	5.5	19.2	51
1787 048	3x1,0	6.0	28.8	65
1787 049	4x1,0	6.6	38.4	79
1787 050	5x1,0	7.1	48.0	95
1787 051	6x1,0	7.7	57.6	113
1787 052	7x1,0	7.7	67.2	118
1787 053	8x1,0	8.3	76.8	136
1787 054	10x1,0	9.9	96.0	172
1787 055	12x1,0	10.3	115.2	195
1787 056	14x1,0	10.8	134.4	220
1787 057	16x1,0	11.3	153.6	248
1787 058	18x1,0	12.2	172.8	284
1787 059	20x1,0	12.8	192.0	314
1787 060	21x1,0	12.8	201.6	319
1787 061	27x1,0	14.5	259.2	397
1787 062	30x1,0	15.2	288.0	441
1787 063	36x1,0	16.4	345.6	522
1787 064	40x1,0	17.0	384.0	569
1787 065	44x1,0	18.6	422.4	633
1787 066	48x1,0	18.9	460.8	679
1787 067	52x1,0	19.4	499.2	727

**HSLH-JZ 300/500 V, HSLH-OZ 300/500 V  
HSLH-JB 300/500 V, HSLH-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1787 068	56x1,0	20.0	537.6	779
1787 069	61x1,0	20.6	585.6	837
1787 070	2x1,5	6.7	28.8	76
1787 071	3x1,5	7.0	43.2	90
1787 072	4x1,5	7.7	57.6	110
1787 073	5x1,5	8.4	72.0	135
1787 074	6x1,5	9.3	86.4	164
1787 075	7x1,5	9.3	100.8	173
1787 076	8x1,5	10.1	115.2	200
1787 077	10x1,5	11.8	144.0	245
1787 078	12x1,5	12.4	172.8	285
1787 079	14x1,5	13.0	201.6	322
1787 080	16x1,5	13.8	230.4	365
1787 081	18x1,5	14.5	259.2	407
1787 082	20x1,5	15.5	288.0	460
1787 083	21x1,5	15.5	302.4	468
1787 084	27x1,5	17.6	388.8	583
1787 085	30x1,5	18.4	432.0	646
1787 086	36x1,5	19.9	518.4	767
1787 087	40x1,5	20.6	576.0	837
1787 088	44x1,5	22.5	633.6	929
1787 089	48x1,5	22.9	691.2	998
1787 090	52x1,5	23.6	748.8	1071
1787 091	56x1,5	24.5	806.4	1160
1787 092	61x1,5	25.2	878.4	1246
1787 093	2x2,5	7.9	48.0	109
1787 094	3x2,5	8.4	72.0	134
1787 095	4x2,5	9.4	96.0	169
1787 096	5x2,5	10.3	120.0	207
1787 097	6x2,5	11.2	144.0	247
1787 098	7x2,5	11.2	168.0	261
1787 099	8x2,5	12.4	192.0	308
1787 100	10x2,5	14.5	240.0	379
1787 101	12x2,5	15.2	288.0	440
1787 102	14x2,5	16.0	336.0	499
1787 103	16x2,5	16.9	384.0	566
1787 104	18x2,5	17.9	432.0	634
1787 105	20x2,5	19.0	480.0	712
1787 106	21x2,5	19.0	504.0	725
1787 107	27x2,5	21.8	648.0	918
1787 108	30x2,5	22.6	720.0	1005
1787 109	36x2,5	24.7	864.0	1208
1787 110	40x2,5	25.6	960.0	1319
1787 111	44x2,5	28.0	1056.0	1463
1787 112	48x2,5	28.5	1152.0	1573
1787 113	52x2,5	29.3	1248.0	1688
1787 114	56x2,5	30.2	1344.0	1811
1787 115	61x2,5	31.3	1464.0	1964
1787 116	2x4	9.1	76.8	152
1787 117	3x4	9.7	115.2	189
1787 118	4x4	10.6	153.6	232
1787 119	5x4	11.6	192.0	287
1787 120	7x4	12.9	268.8	372

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1787 121	2x6	10.2	115.2	203
1787 122	3x6	10.8	172.8	254
1787 123	4x6	12.1	230.4	323
1787 124	5x6	13.3	288.0	399
1787 125	7x6	14.6	403.2	513
HSLH-OZ 300/500 V				
1788 001	2x0,5	4.8	9.6	36
1788 002	3x0,5	5.1	14.4	43
1788 003	4x0,5	5.5	19.2	51
1788 004	5x0,5	6.2	24.0	65
1788 005	7x0,5	6.7	33.6	79
1788 006	2x0,75	5.2	14.4	44
1788 007	3x0,75	5.4	21.6	51
1788 008	4x0,75	6.1	28.8	65
1788 009	5x0,75	6.6	36.0	79
1788 010	7x0,75	7.2	50.4	97
1788 011	2x1,0	5.5	19.2	51
1788 012	3x1,0	6.0	28.8	65
1788 013	4x1,0	6.6	38.4	79
1788 014	5x1,0	7.1	48.0	95
1788 015	7x1,0	7.7	67.2	118
1788 016	2x1,5	6.7	28.8	76
1788 017	3x1,5	7.0	43.2	90
1788 018	4x1,5	7.7	57.6	110
1788 019	5x1,5	8.4	72.0	135
1788 020	7x1,5	9.3	100.8	173
1788 021	2x2,5	7.9	48.0	109
1788 022	3x2,5	8.4	72.0	134
1788 023	4x2,5	9.4	96.0	169
1788 024	5x2,5	10.3	120.0	207
1788 025	7x2,5	11.2	168.0	261
1788 026	2x4	9.1	76.8	152
1788 027	3x4	9.7	115.2	189
1788 028	4x4	10.6	153.6	232
1788 029	5x4	11.6	192.0	287
1788 030	7x4	12.9	268.8	372
1788 031	2x6	10.2	115.2	203
1788 032	3x6	10.8	172.8	254
1788 033	4x6	12.1	230.4	323
1788 034	5x6	13.3	288.0	399
1788 035	7x6	14.6	403.2	513
HSLH-JB 300/500 V				
1789 001	3x0,5	5.1	14.4	43
1789 002	5x0,5	6.2	24.0	65
1789 003	3x0,75	5.4	21.6	51
1789 004	5x0,75	6.6	36.0	79
1789 005	3x1,0	6.0	28.8	65
1789 006	5x1,0	7.1	48.0	95
1789 007	3x1,5	7.0	43.2	90

**HSLH-JZ 300/500 V, HSLH-OZ 300/500 V  
HSLH-JB 300/500 V, HSLH-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1789 008	5x1,5	8.4	72.0	135
1789 009	3x2,5	8.4	72.0	134
1789 010	5x2,5	10.3	120.0	207
1789 011	3x4	9.7	115.2	189
1789 012	5x4	11.6	192.0	287
1789 013	3x6	10.8	172.8	254
1789 014	5x6	13.3	288.0	399
HSLH-OB 300/500 V				
1790 001	2x0,5	4.8	9.6	36
1790 002	4x0,5	5.5	19.2	51
1790 003	2x0,75	5.2	14.4	44

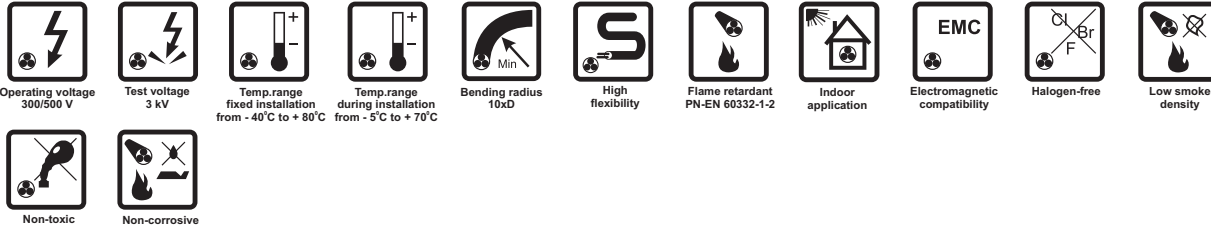
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1790 004	4x0,75	6.1	28.8	65
1790 005	2x1,0	5.5	19.2	51
1790 006	4x1,0	6.6	38.4	79
1790 007	2x1,5	6.7	28.8	76
1790 008	4x1,5	7.7	57.6	110
1790 009	2x2,5	7.9	48.0	109
1790 010	4x2,5	9.4	96.0	169
1790 011	2x4	9.1	76.8	152
1790 012	4x4	10.6	153.6	232
1790 013	2x6	10.2	115.2	203
1790 014	4x6	12.1	230.4	323

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**HSLCH-JZ 300/500 V, HSLCH-OZ 300/500 V,  
HSLCH-JB 300/500 V, HSLCH-OB 300/500 V**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**HSLCH-JZ 300/500 V, HSLCH-OZ 300/500 V, HSLCH-JB 300/500 V** and **HSLCH-OB 300/500 V** are flexible, overall shielded cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR), identification colour code:  
**HSLCH-OZ 300/500 V** - black and white conductor number printed on it,  
**HSLCH-OB 300/500 V** - colours in accordance with PN-HD 308 standard,  
green-yellow protective conductor located in the outer layer in **HSLCH-JZ 300/500 V**  
and **HSLCH-JB 300/500 V** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- cable sheath made of halogen free compound (HFFR), grey (RAL 7001), other colours also available.

**HSLCH-JZ 300/500 V, HSLCH-OZ 300/500 V,  
HSLCH-JB 300/500 V, HSLCH-OB 300/500 V**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	300/500 V	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	3.0 kV rms	pH appr.	6.8
Insulation resistance, minimum	20 MΩ·km	conductivity appr.	0.4 μS/mm
Conductor temperature limit in work conditions at short-circuit	+ 70°C + 150°C	Smoke density light transmittance, minimum	PN-EN 61034-2, IEC 61034-2 70 %
Operating temperature range for fixed installation	from - 40 to + 80°C	Cable combustibility	flame retardant
for movable installation	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Minimum bending radius	10 x cable diameter	Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
<b>HSLCH-JZ 300/500 V</b>				
1795 001	2x0,5	5.3	17.6	39
1795 002	3x0,5	5.6	22.5	47
1795 003	4x0,5	6.2	28.9	60
1795 004	5x0,5	6.7	33.7	70
1795 005	6x0,5	7.2	39.4	82
1795 006	7x0,5	7.2	44.2	85
1795 007	8x0,5	7.7	50.0	97
1795 008	10x0,5	9.1	65.9	124
1795 009	12x0,5	9.4	76.6	140
1795 010	14x0,5	9.8	87.0	155
1795 011	16x0,5	10.3	98.5	174
1795 012	18x0,5	10.8	108.7	193
1795 013	20x0,5	11.3	119.6	212
1795 014	21x0,5	11.3	124.4	214
1795 015	27x0,5	12.9	156.8	268
1795 016	30x0,5	13.3	172.3	291
1795 017	36x0,5	14.3	203.7	342
1795 018	40x0,5	14.8	224.1	371
1795 019	44x0,5	16.2	253.3	418
1795 020	48x0,5	16.5	273.8	448
1795 021	52x0,5	16.9	293.9	477
1795 022	56x0,5	17.4	314.7	509
1795 023	61x0,5	17.9	340.2	545
1795 024	2x0,75	5.7	22.5	46
1795 025	3x0,75	6.1	30.0	59
1795 026	4x0,75	6.6	38.5	71
1795 027	5x0,75	7.1	46.4	84
1795 028	6x0,75	7.7	54.8	100
1795 029	7x0,75	7.7	62.0	104
1795 030	8x0,75	8.3	74.0	123
1795 031	10x0,75	9.8	91.8	152
1795 032	12x0,75	10.1	106.9	171
1795 033	14x0,75	10.6	122.6	193
1795 034	16x0,75	11.1	138.3	216
1795 035	18x0,75	11.7	154.2	240

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1795 036	20x0,75	12.4	169.9	270
1795 037	21x0,75	12.4	177.1	275
1795 038	27x0,75	14.0	224.5	338
1795 039	30x0,75	14.4	247.1	367
1795 040	36x0,75	15.8	300.1	448
1795 041	40x0,75	16.4	330.8	487
1795 042	44x0,75	17.6	363.2	530
1795 043	48x0,75	17.9	393.0	568
1795 044	52x0,75	18.6	423.3	616
1795 045	56x0,75	19.1	453.7	658
1795 046	61x0,75	19.7	491.5	706
1795 047	2x1,0	6.2	28.9	56
1795 048	3x1,0	6.5	38.5	69
1795 049	4x1,0	7.1	48.8	84
1795 050	5x1,0	7.6	59.4	101
1795 051	6x1,0	8.3	74.0	123
1795 052	7x1,0	8.3	83.6	129
1795 053	8x1,0	9.1	94.7	152
1795 054	10x1,0	10.5	117.7	182
1795 055	12x1,0	10.9	137.8	208
1795 056	14x1,0	11.4	158.8	234
1795 057	16x1,0	12.1	178.8	269
1795 058	18x1,0	12.8	199.9	300
1795 059	20x1,0	13.4	220.5	331
1795 060	21x1,0	13.4	230.1	336
1795 061	27x1,0	15.4	298.8	429
1795 062	30x1,0	15.9	329.2	467
1795 063	36x1,0	17.1	390.5	551
1795 064	40x1,0	17.7	430.8	600
1795 065	44x1,0	19.3	473.5	664
1795 066	48x1,0	19.6	512.8	712
1795 067	52x1,0	20.1	552.8	761
1795 068	56x1,0	20.7	593.0	815
1795 069	61x1,0	21.5	642.9	885
1795 070	2x1,5	7.2	39.4	71

**HSLCH-JZ 300/500 V, HSLCH-OZ 300/500 V,  
HSLCH-JB 300/500 V, HSLCH-OB 300/500 V**

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
1795 071	3x1,5	7.5	54.4	89
1795 072	4x1,5	8.3	74.0	113
1795 073	5x1,5	9.2	91.0	143
1795 074	6x1,5	9.9	106.4	167
1795 075	7x1,5	9.9	120.8	175
1795 076	8x1,5	10.7	137.3	201
1795 077	10x1,5	12.6	170.5	248
1795 078	12x1,5	13.0	200.3	282
1795 079	14x1,5	13.6	230.6	319
1795 080	16x1,5	14.4	261.5	361
1795 081	18x1,5	15.4	298.8	416
1795 082	20x1,5	16.2	330.1	460
1795 083	21x1,5	16.2	344.5	467
1795 084	27x1,5	18.5	437.4	586
1795 085	30x1,5	19.1	482.5	639
1795 086	36x1,5	20.6	573.5	756
1795 087	40x1,5	21.5	633.3	833
1795 088	44x1,5	23.4	718.8	932
1795 089	48x1,5	23.8	778.0	999
1795 090	52x1,5	24.7	838.6	1082
1795 091	56x1,5	25.4	899.1	1155
1795 092	61x1,5	26.1	974.0	1238
1795 093	2x2,5	8.5	64.9	100
1795 094	3x2,5	9.2	91.0	133
1795 095	4x2,5	10.0	116.2	163
1795 096	5x2,5	10.9	142.6	200
1795 097	6x2,5	11.8	168.9	237
1795 098	7x2,5	11.8	192.9	250
1795 099	8x2,5	13.0	219.5	294
1795 100	10x2,5	15.4	279.6	368
1795 101	12x2,5	15.9	329.2	421
1795 102	14x2,5	16.7	379.7	478
1795 103	16x2,5	17.6	430.4	540
1795 104	18x2,5	18.8	481.5	614
1795 105	20x2,5	19.7	532.3	679
1795 106	21x2,5	19.7	556.3	689
1795 107	27x2,5	22.5	708.4	866
1795 108	30x2,5	23.5	805.6	969
1795 109	36x2,5	25.6	957.6	1159
1795 110	40x2,5	26.5	1057.3	1260
1795 111	44x2,5	29.1	1191.0	1420
1795 112	48x2,5	29.6	1290.1	1524
1795 113	52x2,5	30.6	1389.9	1647
1795 114	56x2,5	31.5	1490.7	1762
1795 115	61x2,5	32.4	1615.4	1890
1795 116	2x4	9.7	96.3	140
1795 117	3x4	10.3	136.9	183
1795 118	4x4	11.2	177.0	228
1795 119	5x4	12.4	217.9	288
1795 120	7x4	13.5	297.6	366
1795 121	2x6	10.8	137.5	185
1795 122	3x6	11.4	197.2	246
1795 123	4x6	12.7	257.5	318
1795 124	5x6	13.9	317.8	394
1795 125	7x6	15.5	443.2	522

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
HSLCH-OZ 300/500 V				
1725 003	2x0,5	5.3	17.6	39
1725 004	3x0,5	5.6	22.5	47
1725 005	4x0,5	6.2	28.9	60
1725 006	5x0,5	6.7	33.7	70
1725 007	7x0,5	7.2	44.2	85
1725 008	2x0,75	5.7	22.5	46
1725 009	3x0,75	6.1	30.0	59
1725 010	4x0,75	6.6	38.5	71
1725 011	5x0,75	7.1	46.4	84
1725 012	7x0,75	7.7	62.0	104
1725 013	2x1,0	6.2	28.9	56
1725 014	3x1,0	6.5	38.5	69
1725 015	4x1,0	7.1	48.8	84
1725 016	5x1,0	7.6	59.4	101
1725 017	7x1,0	8.3	83.6	129
1725 018	2x1,5	7.2	39.4	71
1725 019	3x1,5	7.5	54.4	89
1725 020	4x1,5	8.3	74.0	113
1725 021	5x1,5	9.2	91.0	143
1725 022	7x1,5	9.9	120.8	175
1725 023	2x2,5	8.5	64.9	100
1725 024	3x2,5	9.2	91.0	133
1725 025	4x2,5	10.0	116.2	163
1725 026	5x2,5	10.9	142.6	200
1725 027	7x2,5	11.8	192.9	250
1725 028	2x4	9.7	96.3	140
1725 029	3x4	10.3	136.9	183
1725 030	4x4	11.2	177.0	228
1725 031	5x4	12.4	217.9	288
1725 032	7x4	13.5	297.6	366
1725 033	2x6	10.8	137.5	185
1725 034	3x6	11.4	197.2	246
1725 035	4x6	12.7	257.5	318
1725 036	5x6	13.9	317.8	394
1725 037	7x6	15.5	443.2	522
HSLCH-JB 300/500 V				
1796 001	3x0,5	5.6	22.5	47
1796 002	5x0,5	6.7	33.7	70
1796 003	3x0,75	6.1	30.0	59
1796 004	5x0,75	7.1	46.4	84
1796 005	3x1,0	6.5	38.5	69
1796 006	5x1,0	7.6	59.4	101
1796 007	3x1,5	7.5	54.4	89
1796 008	5x1,5	9.2	91.0	143
1796 009	3x2,5	9.2	91.0	133
1796 010	5x2,5	10.9	142.6	200
1796 011	3x4	10.3	136.9	183
1796 012	5x4	12.4	217.9	288
1796 013	3x6	11.4	197.2	246
1796 014	5x6	13.9	317.8	394
HSLCH-OB 300/500 V				
1797 001	2x0,5	5.3	17.6	39
1797 002	4x0,5	6.2	28.9	60



**HSLCH-JZ 300/500 V, HSLCH-OZ 300/500 V,  
HSLCH-JB 300/500 V, HSLCH-OB 300/500 V**

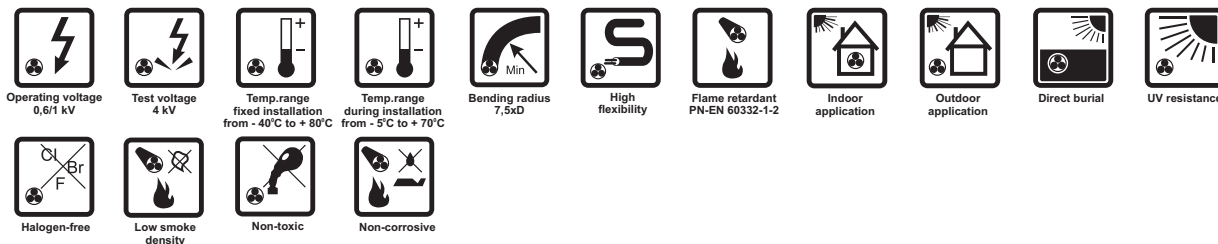
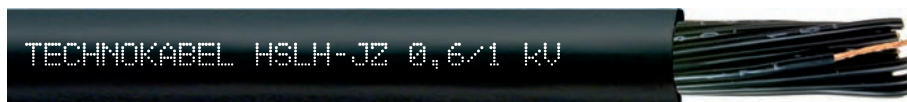
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1797 003	2x0,75	5.7	22.5	46
1797 004	4x0,75	6.6	38.5	71
1797 005	2x1,0	6.2	28.9	56
1797 006	4x1,0	7.1	48.8	84
1797 007	2x1,5	7.2	39.4	71
1797 008	4x1,5	8.3	74.0	113

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1797 009	2x2,5	8.5	64.9	100
1797 010	4x2,5	10.0	116.2	163
1797 011	2x4	9.7	96.3	140
1797 012	4x4	11.2	177.0	228
1797 013	2x6	10.8	137.5	185
1797 014	4x6	12.7	257.5	318

Other cross-sections and conductor counts available on request.  
**TECHNOKABEL S.A. reserves the right to change specifications without prior notice.**

**HSLH-JZ 0,6/1 kV, HSLH-OZ 0,6/1 kV  
HSLH-JB 0,6/1 kV, HSLH-OB 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**HSLH-JZ 0,6/1 kV, HSLH-OZ 0,6/1 kV, HSLH-JB 0,6/1 kV** and **HSLH-OB 0,6/1 kV** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Sheathing black halogen free material is resistant to UV radiation.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR), identification colour code:
  - HSLH-OZ 0,6/1 kV** - black and white conductor number printed on it,
  - HSLH-OB 0,6/1 kV** - colours in accordance with PN-HD 308 standard,
  - green-yellow protective conductor located in the outer layer in **HSLH-JZ 0,6/1 kV** and **HSLH-JB 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- black cable sheath made of halogen free compound (HFFR).

**HSLH-JZ 0,6/1 KV, HSLH-OZ 0,6/1 KV  
HSLH-JB 0,6/1 KV, HSLH-OB 0,6/1 KV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2,
Voltage test	4 kV rms	pH appr.	IEC 60754-2
Insulation resistance, minimum	20 MΩ·km	conductivity appr.	6.8
Conductor temperature limit in work conditions at short-circuit	+ 70°C + 160°C	Smoke density light transmittance, minimum	0.4 μS/mm
Operating temperature range for fixed installation for movable installation	from - 40 to + 80°C from - 5 to + 70°C	Cable combustibility	PN-EN 61034-2, IEC 61034-2
Minimum bending radius	7.5 x cable diameter	Combustibility tests	70 %
		Reference standards	flame retardant PN-EN 60332-1-2, IEC 60332-1-2 WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
<b>HSLH-JZ 0,6/1 kV</b>				
1791 001	2x0,5	7.6	9.6	79
1791 002	3x0,5	7.9	14.4	88
1791 003	4x0,5	8.5	19.2	102
1791 004	5x0,5	9.1	24.0	119
1791 005	6x0,5	9.8	28.8	138
1791 006	7x0,5	9.8	33.6	141
1791 007	8x0,5	10.5	38.4	160
1791 008	10x0,5	12.0	48.0	193
1791 009	12x0,5	12.4	57.6	213
1791 010	14x0,5	12.9	67.2	235
1791 011	16x0,5	13.6	76.8	263
1791 012	18x0,5	14.3	86.4	291
1791 013	20x0,5	14.9	96.0	319
1791 014	21x0,5	14.9	100.8	321
1791 015	27x0,5	16.8	129.6	393
1791 016	30x0,5	17.4	144.0	425
1791 017	36x0,5	18.7	172.8	498
1791 018	40x0,5	19.4	192.0	539
1791 019	44x0,5	20.9	211.2	590
1791 020	48x0,5	21.3	230.4	629
1791 021	52x0,5	22.1	249.6	682
1791 022	56x0,5	22.7	268.8	727
1791 023	61x0,5	23.4	292.8	777
1791 024	2x0,75	7.9	14.4	88
1791 025	3x0,75	8.3	21.6	100
1791 026	4x0,75	8.9	28.8	116
1791 027	5x0,75	9.6	36.0	138
1791 028	6x0,75	10.3	43.2	160
1791 029	7x0,75	10.3	50.4	163
1791 030	8x0,75	11.1	57.6	187
1791 031	10x0,75	12.7	72.0	226
1791 032	12x0,75	13.1	86.4	251

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
1791 033	14x0,75	13.7	100.8	279
1791 034	16x0,75	14.4	115.2	312
1791 035	18x0,75	15.2	129.6	347
1791 036	20x0,75	15.9	144.0	382
1791 037	21x0,75	15.9	151.2	385
1791 038	27x0,75	17.9	194.4	472
1791 039	30x0,75	18.6	216.0	513
1791 040	36x0,75	20.0	259.2	603
1791 041	40x0,75	20.7	288.0	654
1791 042	44x0,75	22.6	316.8	727
1791 043	48x0,75	23.0	345.6	776
1791 044	52x0,75	23.6	374.4	828
1791 045	56x0,75	24.3	403.2	885
1791 046	61x0,75	25.2	439.2	959
1791 047	2x1,0	8.3	19.2	99
1791 048	3x1,0	8.7	28.8	113
1791 049	4x1,0	9.4	38.4	133
1791 050	5x1,0	10.1	48.0	158
1791 051	6x1,0	10.9	57.6	184
1791 052	7x1,0	10.9	67.2	190
1791 053	8x1,0	11.7	76.8	217
1791 054	10x1,0	13.5	96.0	264
1791 055	12x1,0	13.9	115.2	293
1791 056	14x1,0	14.5	134.4	327
1791 057	16x1,0	15.3	153.6	367
1791 058	18x1,0	16.1	172.8	407
1791 059	20x1,0	16.8	192.0	448
1791 060	21x1,0	16.8	201.6	454
1791 061	27x1,0	19.0	259.2	559
1791 062	30x1,0	19.7	288.0	608
1791 063	36x1,0	21.2	345.6	717
1791 064	40x1,0	22.2	384.0	790
1791 065	44x1,0	24.0	422.4	866

**HSLH-JZ 0,6/1 KV, HSLH-OZ 0,6/1 KV  
HSLH-JB 0,6/1 KV, HSLH-OB 0,6/1 KV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1791 066	48x1,0	24.4	460.8	925
1791 067	52x1,0	25.3	499.2	1002
1791 068	56x1,0	26.0	537.6	1071
1791 069	61x1,0	26.8	585.6	1147
1791 070	2x1,5	8.8	28.8	116
1791 071	3x1,5	9.3	43.2	136
1791 072	4x1,5	10.0	57.6	160
1791 073	5x1,5	10.8	72.0	191
1791 074	6x1,5	11.7	86.4	224
1791 075	7x1,5	11.7	100.8	233
1791 076	8x1,5	12.6	115.2	268
1791 077	10x1,5	14.5	144.0	325
1791 078	12x1,5	15.0	172.8	365
1791 079	14x1,5	15.7	201.6	409
1791 080	16x1,5	16.5	230.4	460
1791 081	18x1,5	17.4	259.2	512
1791 082	20x1,5	18.3	288.0	567
1791 083	21x1,5	18.3	302.4	575
1791 084	27x1,5	20.7	388.8	711
1791 085	30x1,5	21.4	432.0	774
1791 086	36x1,5	23.3	518.4	928
1791 087	40x1,5	24.2	576.0	1011
1791 088	44x1,5	26.4	633.6	1121
1791 089	48x1,5	26.8	691.2	1200
1791 090	52x1,5	27.6	748.8	1285
1791 091	56x1,5	28.6	806.4	1389
1791 092	61x1,5	29.4	878.4	1489
1791 093	2x2,5	10.1	48.0	158
1791 094	3x2,5	10.6	72.0	185
1791 095	4x2,5	11.5	96.0	222
1791 096	5x2,5	12.5	120.0	269
1791 097	6x2,5	13.6	144.0	317
1791 098	7x2,5	13.6	168.0	332
1791 099	8x2,5	14.6	192.0	380
1791 100	10x2,5	17.1	240.0	468
1791 101	12x2,5	17.6	288.0	527
1791 102	14x2,5	18.5	336.0	595
1791 103	16x2,5	19.5	384.0	672
1791 104	18x2,5	20.6	432.0	750
1791 105	20x2,5	21.6	480.0	831
1791 106	21x2,5	21.6	504.0	843
1791 107	27x2,5	25.0	648.0	1076
1791 108	30x2,5	25.9	720.0	1174
1791 109	36x2,5	28.1	864.0	1404
1791 110	40x2,5	29.2	960.0	1532
1791 111	44x2,5	31.8	1056.0	1695
1791 112	48x2,5	32.4	1152.0	1819
1791 113	52x2,5	33.3	1248.0	1949
1791 114	56x2,5	34.5	1344.0	2106
1791 115	61x2,5	35.5	1464.0	2261
1791 116	2x4	11.1	76.8	201
1791 117	3x4	11.7	115.2	241

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1791 118	4x4	12.7	153.6	292
1791 119	5x4	13.9	192.0	356
1791 120	7x4	15.0	268.8	442
1791 121	2x6	12.2	115.2	257
1791 122	3x6	12.9	172.8	314
1791 123	4x6	14.1	230.4	385
1791 124	5x6	15.4	288.0	471
1791 125	7x6	16.8	403.2	596
1791 126	2x10	15.0	192.0	408
1791 127	3x10	15.9	288.0	505
1791 128	4x10	17.5	384.0	625
1791 129	5x10	19.2	480.0	771
1791 130	7x10	21.0	672.0	985
1791 131	2x16	17.2	307.2	574
1791 132	3x16	18.3	460.8	724
1791 133	4x16	20.1	614.4	901
1791 134	5x16	22.3	768.0	1128
1791 135	7x16	24.4	1075.2	1452
1791 136	2x50	29.2	960.0	1642
1791 137	3x50	31.4	1440.0	2094
1791 138	4x50	34.9	1920.0	2634
1791 139	5x50	38.7	2400.0	3297
1791 140	7x50	42.7	3360.0	4274
HSLH-OZ 0,6/1 kv				
1792 001	2x0,5	7.6	9.6	79
1792 002	3x0,5	7.9	14.4	88
1792 003	4x0,5	8.5	19.2	102
1792 004	5x0,5	9.1	24.0	119
1792 005	7x0,5	9.8	33.6	141
1792 006	2x0,75	7.9	14.4	88
1792 007	3x0,75	8.3	21.6	100
1792 008	4x0,75	8.9	28.8	116
1792 009	5x0,75	9.6	36.0	138
1792 010	7x0,75	10.3	50.4	163
1792 011	2x1	8.3	19.2	99
1792 012	3x1	8.7	28.8	113
1792 013	4x1	9.4	38.4	133
1792 014	5x1	10.1	48.0	158
1792 015	7x1	10.9	67.2	190
1792 016	2x1,5	8.8	28.8	116
1792 017	3x1,5	9.3	43.2	136
1792 018	4x1,5	10.0	57.6	160
1792 019	5x1,5	10.8	72.0	191
1792 020	7x1,5	11.7	100.8	233
1792 021	2x2,5	10.1	48.0	158
1792 022	3x2,5	10.6	72.0	185
1792 023	4x2,5	11.5	96.0	222

**HSLH-JZ 0,6/1 KV, HSLH-OZ 0,6/1 KV  
HSLH-JB 0,6/1 KV, HSLH-OB 0,6/1 KV**

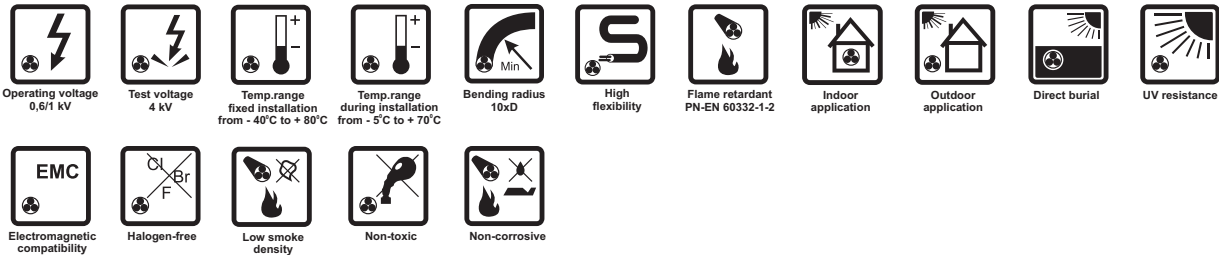
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1792 024	5x2,5	12.5	120.0	269
1792 025	7x2,5	13.6	168.0	332
1792 026	2x4	11.1	76.8	201
1792 027	3x4	11.7	115.2	241
1792 028	4x4	12.7	153.6	292
1792 029	5x4	13.9	192.0	356
1792 030	7x4	15.0	268.8	442
1792 031	2x6	12.2	115.2	257
1792 032	3x6	12.9	172.8	314
1792 033	4x6	14.1	230.4	385
1792 034	5x6	15.4	288.0	471
1792 035	7x6	16.8	403.2	596
1792 036	2x10	15.0	192.0	408
1792 037	3x10	15.9	288.0	505
1792 038	4x10	17.5	384.0	625
1792 039	5x10	19.2	480.0	771
1792 040	7x10	21.0	672.0	985
1792 041	2x16	17.2	307.2	574
1792 042	3x16	18.3	460.8	724
1792 043	4x16	20.1	614.4	901
1792 044	5x16	22.3	768.0	1128
1792 045	7x16	24.4	1075.2	1452
1792 046	2x50	29.2	960.0	1642
1792 047	3x50	31.4	1440.0	2094
1792 048	4x50	34.9	1920.0	2634
1792 049	5x50	38.7	2400.0	3297
1792 050	7x50	42.7	3360.0	4274
HSLH-JB 0,6/1 kV				
1793 001	3x0,5	7.9	14.4	88
1793 002	5x0,5	9.1	24.0	119
1793 003	3x0,75	8.3	21.6	100
1793 004	5x0,75	9.6	36.0	138
1793 005	3x1,0	8.7	28.8	113

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1793 006	5x1,0	10.1	48.0	158
1793 007	3x1,5	9.3	43.2	136
1793 008	5x1,5	10.8	72.0	191
1793 009	3x2,5	10.6	72.0	185
1793 010	5x2,5	12.5	120.0	269
1793 011	3x4	11.7	115.2	241
1793 012	5x4	13.9	192.0	356
1793 013	3x6	12.9	172.8	314
1793 014	5x6	15.4	288.0	471
1793 015	3x10	15.9	288.0	505
1793 016	5x10	19.2	480.0	771
1793 017	3x16	18.3	460.8	724
1793 018	5x16	22.3	768.0	1128
1793 019	3x50	31.4	1440.0	2094
1793 020	5x50	38.7	2400.0	3297
HSLH-OB 0,6/1 kV				
1794 001	2x0,5	7.6	9.6	79
1794 002	4x0,5	8.5	19.2	102
1794 003	2x0,75	7.9	14.4	88
1794 004	4x0,75	8.9	28.8	116
1794 005	2x1,0	8.3	19.2	99
1794 006	4x1,0	9.4	38.4	133
1794 007	2x1,5	8.8	28.8	116
1794 008	4x1,5	10.0	57.6	160
1794 009	2x2,5	10.1	48.0	158
1794 010	4x2,5	11.5	96.0	222
1794 011	2x4	11.1	76.8	201
1794 012	4x4	12.7	153.6	292
1794 013	2x6	12.2	115.2	257
1794 014	4x6	14.1	230.4	385
1794 015	2x10	15.0	192.0	408
1794 016	4x10	17.5	384.0	625
1794 017	2x16	17.2	307.2	574
1794 018	4x16	20.1	614.4	901
1794 019	2x50	29.2	960.0	1642
1794 020	4x50	34.9	1920.0	2634

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**HSLCH-JZ 0,6/1 kV, HSLCH-OZ 0,6/1 kV  
HSLCH-JB 0,6/1 kV, HSLCH-OB 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



**APPLICATIONS**

**HSLCH-JZ 0,6/1 kV, HSLCH-OZ 0,6/1 kV, HSLCH-JB 0,6/1 kV** and **HSLCH-OB 0,6/1 kV** are flexible, overall shielded cables intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor and outdoor installations in dry and wet locations, also for direct earth burial.

Sheathing black halogen free material is resistant to UV radiation.

Cable outer sheath is oil-resistant.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR), identification colour code:  
**HSLCH-OZ 0,6/1 kV** - black and white conductor number printed on it,  
**HSLCH-OB 0,6/1 kV** - colours in accordance with PN-HD 308 standard,  
green-yellow protective conductor located in the outer layer in **HSLCH-JZ 0,6/1 kV**  
and **HSLCH-JB 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- black cable sheath made of halogen free compound (HFFR).

**HSLCH-JZ 0,6/1 kV, HSLCH-OZ 0,6/1 kV  
HSLCH-JB 0,6/1 kV, HSLCH-OB 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.5</b>	<b>4.0</b>
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98	4.95
Conductor cross-section	mm <sup>2</sup>	<b>6.0</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>
DC conductor resistance at 20°C, maximum	Ω/km	3.30	1.91	1.21	0.780	0.554	0.386

Operating voltage Uo/U	0.6/1 kV	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	4 kV rms	pH appr.	6.8
Insulation resistance, minimum	20 MΩ·km	conductivity appr.	0.4 μS/mm
Conductor temperature limit in work conditions at short-circuit	+ 70°C + 160°C	Smoke density light transmittance, minimum	PN-EN 61034-2, IEC 61034-2 70 %
Operating temperature range for fixed installation	from - 40 to + 80°C	Cable combustibility	flame retardant
for movable installation	from - 5 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Minimum bending radius	10 x cable diameter	Reference standards	WT-TK-50

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
<b>HSLCH-JZ 0,6/1 kV</b>				
1798 001	2x0,5	8.1	19.3	79
1798 002	3x0,5	8.4	24.6	91
1798 003	4x0,5	9.0	30.6	106
1798 004	5x0,5	9.7	40.4	128
1798 005	6x0,5	10.4	47.8	148
1798 006	7x0,5	10.4	52.6	150
1798 007	8x0,5	11.1	58.4	169
1798008	10x0,5	12.6	72.4	199
1798 009	12x0,5	13.0	82.5	220
1798 010	14x0,5	13.5	93.4	243
1798 011	16x0,5	14.2	104.8	271
1798 012	18x0,5	14.9	116.2	299
1798 013	20x0,5	15.5	127.4	327
1798 014	21x0,5	15.5	132.2	329
1798 015	27x0,5	17.5	173.3	405
1798 016	30x0,5	18.1	189.5	438
1798 017	36x0,5	19.4	222.3	511
1798 018	40x0,5	20.1	243.7	551
1798 019	44x0,5	21.6	267.6	598
1798 020	48x0,5	22.2	288.0	649
1798 021	52x0,5	22.8	309.1	690
1798 022	56x0,5	23.6	352.3	758
1798 023	61x0,5	24.3	379.2	807
1798 024	2x0,75	8.4	24.6	87
1798 025	3x0,75	8.8	32.6	103
1798 026	4x0,75	9.4	41.0	120
1798 027	5x0,75	10.2	53.7	146
1798 028	6x0,75	10.9	62.7	168
1798 029	7x0,75	10.9	69.9	172
1798 030	8x0,75	11.7	79.3	196
1798 031	10x0,75	13.3	97.7	231
1798 032	12x0,75	13.7	113.5	258
1798 033	14x0,75	14.3	129.1	286
1798 034	16x0,75	15.0	145.3	319
1798 035	18x0,75	15.8	161.7	354
1798 036	20x0,75	16.6	184.9	396
1798 037	21x0,75	16.6	192.1	399
1798 038	27x0,75	18.6	241.5	484
1798 039	30x0,75	19.3	265.2	525
1798 040	36x0,75	20.7	312.8	615

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
1798 041	40x0,75	21.4	343.8	664
1798 042	44x0,75	23.5	399.8	756
1798 043	48x0,75	23.9	430.4	806
1798 044	52x0,75	24.5	461.7	858
1798 045	56x0,75	25.4	493.4	928
1798 046	61x0,75	26.1	532.3	988
1798 047	2x1,0	8.8	30.2	97
1798 048	3x1,0	9.2	40.6	115
1798 049	4x1,0	10.0	55.5	140
1798 050	5x1,0	10.7	67.0	166
1798 051	6x1,0	11.5	79.3	192
1798 052	7x1,0	11.5	88.9	198
1798 053	8x1,0	12.3	99.9	224
1798 054	10x1,0	14.1	123.7	266
1798 055	12x1,0	14.5	144.0	298
1798 056	14x1,0	15.1	164.7	332
1798 057	16x1,0	15.9	186.0	373
1798 058	18x1,0	16.8	214.3	420
1798 059	20x1,0	17.5	235.7	462
1798 060	21x1,0	17.5	245.3	466
1798 061	27x1,0	19.7	309.7	569
1798 062	30x1,0	20.4	340.7	619
1798 063	36x1,0	22.1	402.9	738
1798 064	40x1,0	22.9	443.8	799
1798 065	44x1,0	25.1	511.4	906
1798 066	48x1,0	25.5	551.4	965
1798 067	52x1,0	26.2	592.8	1030
1798 068	56x1,0	26.9	634.1	1099
1798 069	61x1,0	28.1	712.1	1215
1798 070	2x1,5	9.3	40.8	111
1798 071	3x1,5	9.9	60.1	139
1798 072	4x1,5	10.6	76.6	166
1798 073	5x1,5	11.4	92.7	198
1798 074	6x1,5	12.3	109.5	231
1798 075	7x1,5	12.3	123.9	240
1798 076	8x1,5	13.2	140.6	274
1798 077	10x1,5	15.1	174.3	325
1798 078	12x1,5	15.6	204.4	368
1798 079	14x1,5	16.4	241.9	420
1798 080	16x1,5	17.2	273.2	471

**HSLCH-JZ 0,6/1 kV, HSLCH-OZ 0,6/1 kV  
HSLCH-JB 0,6/1 kV, HSLCH-OB 0,6/1 kV**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1798 081	18x1,5	18.1	304.7	524
1798 082	20x1,5	19.0	336.3	578
1798 083	21x1,5	19.0	350.7	586
1798 084	27x1,5	21.4	444.6	719
1798 085	30x1,5	22.3	489.9	793
1798 086	36x1,5	24.2	604.4	958
1798 087	40x1,5	25.3	665.8	1053
1798 088	44x1,5	27.5	758.0	1172
1798 089	48x1,5	28.1	817.7	1266
1798 090	52x1,5	28.9	879.5	1352
1798 091	56x1,5	29.7	941.4	1444
1798 092	61x1,5	30.5	1017.5	1544
1798 093	2x2,5	10.7	67.0	147
1798 094	3x2,5	11.2	92.2	180
1798 095	4x2,5	12.1	118.6	217
1798 096	5x2,5	13.1	145.2	263
1798 097	6x2,5	14.2	172.0	310
1798 098	7x2,5	14.2	196.0	323
1798 099	8x2,5	15.2	222.6	369
1798 100	10x2,5	17.8	284.6	451
1798 101	12x2,5	18.3	334.1	512
1798 102	14x2,5	19.2	384.9	578
1798 103	16x2,5	20.2	436.0	652
1798 104	18x2,5	21.3	487.4	727
1798 105	20x2,5	22.5	538.6	816
1798 106	21x2,5	22.5	562.6	826
1798 107	27x2,5	25.9	740.2	1054
1798 108	30x2,5	26.8	816.1	1149
1798 109	36x2,5	29.2	996.3	1399
1798 110	40x2,5	30.3	1098.2	1519
1798 111	44x2,5	32.9	1206.9	1674
1798 112	48x2,5	33.5	1306.0	1794
1798 113	52x2,5	34.6	1406.8	1935
1798 114	56x2,5	35.6	1508.1	2069
1798 115	61x2,5	36.8	1664.9	2241
1798 116	2x4	11.7	98.5	187
1798 117	3x4	12.3	138.3	236
1798 118	4x4	13.3	179.3	289
1798 119	5x4	14.5	220.8	354
1798 120	7x4	15.6	300.4	441
1798 121	2x6	12.8	139.6	235
1798 122	3x6	13.5	199.0	303
1798 123	4x6	14.7	259.7	377
1798 124	5x6	16.1	327.4	471
1798 125	7x6	17.5	446.9	596
<b>HSLCH-OZ 0,6/1 kV</b>				
1799 001	2x0,5	8.1	19.3	79
1799 002	3x0,5	8.4	24.6	91
1799 003	4x0,5	9.0	30.6	106
1799 004	5x0,5	9.7	40.4	128
1799 005	7x0,5	10.4	52.6	150
1799 006	2x0,75	8.4	24.6	87
1799 007	3x0,75	8.8	32.6	103
1799 008	4x0,75	9.4	41.0	120
1799 009	5x0,75	10.2	53.7	146
1799 010	7x0,75	10.9	69.9	172
1799 011	2x1	8.8	30.2	97
1799 012	3x1	9.2	40.6	115

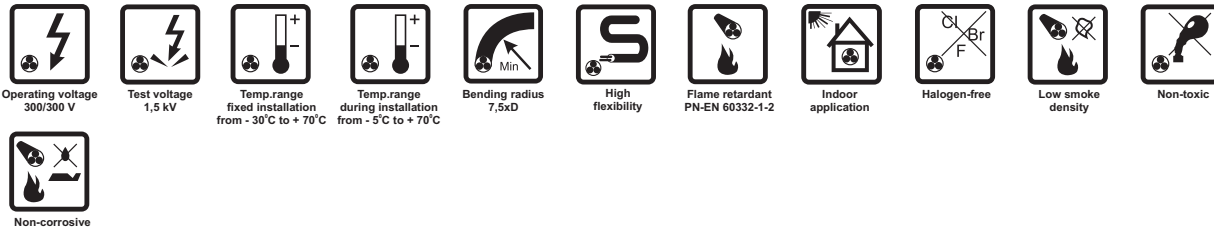
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1799 013	4x1	10.0	55.5	140
1799 014	5x1	10.7	67.0	166
1799 015	7x1	11.5	88.9	198
1799 016	2x1,5	9.3	40.8	111
1799 017	3x1,5	9.9	60.1	139
1799 018	4x1,5	10.6	76.6	166
1799 019	5x1,5	11.4	92.7	198
1799 020	7x1,5	12.3	123.9	240
1799 021	2x2,5	10.7	67.0	147
1799 022	3x2,5	11.2	92.2	180
1799 023	4x2,5	12.1	118.6	217
1799 024	5x2,5	13.1	145.2	263
1799 025	7x2,5	14.2	196.0	323
1799 026	2x4	11.7	98.5	187
1799 027	3x4	12.3	138.3	236
1799 028	4x4	13.3	179.3	289
1799 029	5x4	14.5	220.8	354
1799 030	7x4	15.6	300.4	441
1799 031	2x6	12.8	139.6	235
1799 032	3x6	13.5	199.0	303
1799 033	4x6	14.7	259.7	377
1799 034	5x6	16.1	327.4	471
1799 035	7x6	17.5	446.9	596
<b>HSLCH-JB 0,6/1 kV</b>				
1800 001	3x0,5	8.4	24.6	91
1800 002	5x0,5	9.7	40.4	128
1800 003	3x0,75	8.8	32.6	103
1800 004	5x0,75	10.2	53.7	146
1800 005	3x1,0	9.2	40.6	115
1800 006	5x1,0	10.7	67.0	166
1800 007	3x1,5	9.9	60.1	139
1800 008	5x1,5	11.4	92.7	198
1800 009	3x2,5	11.2	92.2	180
1800 010	5x2,5	13.1	145.2	263
1800 011	3x4	12.3	138.3	236
1800 012	5x4	14.5	220.8	354
1800 013	3x6	13.5	199.0	303
1800 014	5x6	16.1	327.4	471
<b>HSLCH-OB 0,6/1 kV</b>				
1801 001	2x0,5	8.1	19.3	79
1801 002	4x0,5	9.0	30.6	106
1801 003	2x0,75	8.4	24.6	87
1801 004	4x0,75	9.4	41.0	120
1801 005	2x1,0	8.8	30.2	97
1801 006	4x1,0	10.0	55.5	140
1801 007	2x1,5	9.3	40.8	111
1801 008	4x1,5	10.6	76.6	166
1801 009	2x2,5	10.7	67.0	147
1801 010	4x2,5	12.1	118.6	217
1801 011	2x4	11.7	98.5	187
1801 012	4x4	13.3	179.3	289
1801 013	2x6	12.8	139.6	235
1801 014	4x6	14.7	259.7	377

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## TECHNOTRONIK LIHH

### HALOGEN FREE CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LIHH** are halogen free control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables are suitable for connecting fixed and movable equipment inside rail vehicles, subway trains, in trams, as well as for indoor installations.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR) - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable sheath made of halogen free compound (HFFR), grey (RAL 7001), other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK IB-LIHH** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIHH

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	80	90	100	120	140

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Voltage test	1.5 kV rms	Minimum bending radius	7.5 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Impedance, approximate	80 Ω	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Corrosivity of emitted gases per pH appr. conductivity appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2 6.8 0.4 μS/mm	Reference standards	DIN VDE 0812, DIN VDE 0814
Smoke density light transmittance, minimum	PN-EN 61034-2, IEC 61034-2 70 %		

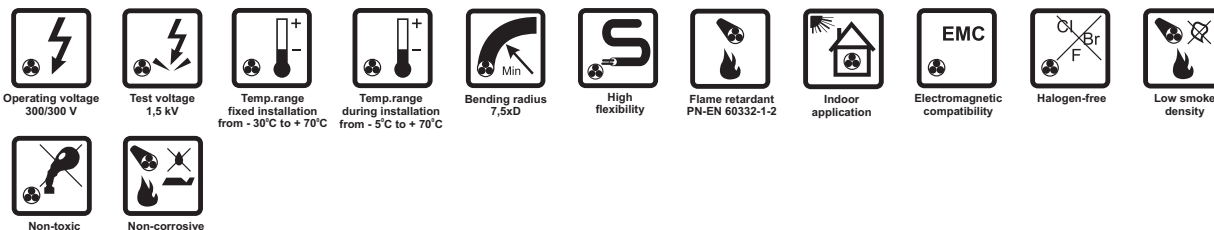
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0453 010	2 x 0,5	4.0	9.6	27
0453 009	3 x 0,5	4.2	14.4	32
0453 026	4 x 0,5	4.6	19.2	39
0453 011	5 x 0,5	5.3	24.0	51
0453 027	6 x 0,5	5.8	28.8	61
0453 034	7 x 0,5	5.8	33.6	64
0453 028	10 x 0,5	7.3	48.0	90
0453 035	12 x 0,5	7.5	57.6	102
0453 013	16 x 0,5	8.4	76.8	130
0453 036	20 x 0,5	9.7	96.0	171
0453 037	25 x 0,5	11.0	120.0	210
0453 038	32 x 0,5	12.1	153.6	260
0453 039	34 x 0,5	12.6	163.2	280
0453 040	37 x 0,5	12.6	177.6	288
0453 041	44 x 0,5	14.3	211.2	347
0453 002	2 x 0,75	4.4	14.4	34
0453 004	3 x 0,75	4.6	21.6	41
0453 005	4 x 0,75	5.3	28.8	53
0453 003	5 x 0,75	5.8	36.0	66
0453 016	6 x 0,75	6.3	43.2	78
0453 014	7 x 0,75	6.3	50.4	82
0453 017	10 x 0,75	8.0	72.0	116
0453 020	12 x 0,75	8.3	86.4	132
0453 022	16 x 0,75	9.6	115.2	179
0453 023	20 x 0,75	10.7	144.0	222
0453 042	25 x 0,75	12.3	180.0	278
0453 043	32 x 0,75	13.3	230.4	339
0453 044	34 x 0,75	14.0	244.8	371
0453 008	2 x 1,0	4.7	19.2	41
0453 001	3 x 1,0	5.2	28.8	53

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
	mm <sup>2</sup>	mm	kg/km	kg/km
0453 006	4 x 1,0	5.7	38.4	65
0453 045	5 x 1,0	6.3	48.0	81
0453 046	6 x 1,0	6.8	57.6	96
0453 047	7 x 1,0	6.8	67.2	101
0453 048	10 x 1,0	8.7	96.0	144
0453 049	12 x 1,0	9.0	115.2	165
0453 018	16 x 1,0	10.5	153.6	224
0453 050	20 x 1,0	11.8	192.0	283
0453 051	25 x 1,0	13.5	240.0	350
0453 024	2 x 1,5	5.7	28.8	60
0453 015	3 x 1,5	6.0	43.2	73
0453 029	4 x 1,5	6.6	57.6	90
0453 030	5 x 1,5	7.3	72.0	112
0453 052	6 x 1,5	7.9	86.4	133
0453 053	7 x 1,5	7.9	100.8	142
0453 054	10 x 1,5	10.6	144.0	213
0453 055	12 x 1,5	11.0	172.8	245
0453 056	16 x 1,5	12.4	230.4	321
0453 057	20 x 1,5	14.0	288.0	406
0453 058	25 x 1,5	15.9	360.0	500
0453 031	2 x 2,5	6.5	48.0	83
0453 007	3 x 2,5	6.9	72.0	105
0453 032	4 x 2,5	7.6	96.0	131
0453 033	5 x 2,5	8.4	120.0	163
0453 059	6 x 2,5	9.6	144.0	205
0453 060	7 x 2,5	9.6	168.0	219
0453 061	10 x 2,5	12.5	240.0	319
0453 062	12 x 2,5	13.0	288.0	367
0453 063	16 x 2,5	14.6	384.0	482

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LIHCH

### HALOGEN FREE CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LIHCH** are halogen free, overall shielded control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables are suitable for connecting fixed and movable equipment inside rail vehicles, subway trains, in trams, as well as for indoor installations.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR) - identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield of effective density coverage,
- cable sheath made of halogen free compound (HFFR), grey (RAL 7001), other colours also available.

## AVAILABLE UPON REQUEST

**TECHNOTRONIK LIHCEH** - cables with flexible drain wire stranded of tin-plated annealed copper wires, laid under a shield.

**TECHNOTRONIK IB-LIHCH** - specially designed intrinsically safe cable.

## TECHNOTRONIK LIHCH

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98
Capacitance between conductors at 1 kHz, appr.	nF/km	100	110	140	130	150

Operating voltage Uo/U	300/300 V	Operating temperature range for fixed installation	from - 30 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Voltage test	1.5 kV rms	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Impedance, approximate	80 Ω	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Corrosivity of emitted gases per pH appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Reference standards	DIN VDE 0812, DIN VDE 0814
conductivity appr.	6.8		
	0.4 μS/mm		
Smoke density light transmittance, minimum	PN-EN 61034-2, IEC 61034-2		
	70 %		

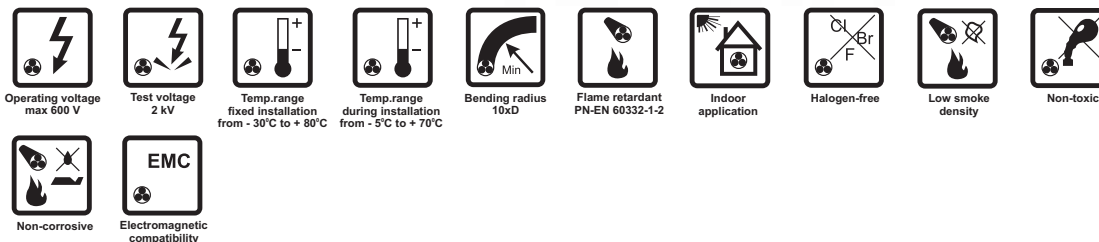
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0076 002	2 x 0,5	4.5	17.7	30
0076 003	3 x 0,5	4.7	22.4	37
0076 014	4 x 0,5	5.3	27.3	47
0076 023	5 x 0,5	5.8	33.7	57
0076 030	6 x 0,5	6.3	38.8	66
0076 046	7 x 0,5	6.3	43.6	69
0076 033	10 x 0,5	7.9	64.9	99
0076 035	12 x 0,5	8.1	75.0	112
0076 047	16 x 0,5	9.0	96.6	143
0076 048	20 x 0,5	10.3	118.1	186
0076 049	25 x 0,5	11.8	145.4	231
0076 050	32 x 0,5	12.7	181.3	278
0076 051	34 x 0,5	13.2	192.2	298
0076 052	37 x 0,5	13.2	206.6	307
0076 053	44 x 0,5	15.0	250.8	373
0076 009	2 x 0,75	4.9	22.4	36
0076 010	3 x 0,75	5.3	29.7	47
0076 011	4 x 0,75	5.8	38.5	58
0076 054	5 x 0,75	6.3	46.0	70
0076 012	6 x 0,75	6.8	54.2	83
0076 036	7 x 0,75	6.8	61.4	88
0076 055	10 x 0,75	8.6	91.0	125
0076 037	12 x 0,75	8.9	105.9	143
0076 056	16 x 0,75	10.2	137.0	193
0076 057	20 x 0,75	11.3	168.6	237
0076 038	25 x 0,75	12.9	208.3	295
0076 058	32 x 0,75	14.1	261.3	364
0076 059	34 x 0,75	14.6	276.9	390
0076 005	2 x 1,0	5.4	27.4	44
0076 006	3 x 1,0	5.7	38.5	57
0076 026	4 x 1,0	6.2	48.2	69

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>			
0076 027	5 x 1,0	6.8	59.0	86
0076 039	6 x 1,0	7.3	69.6	101
0076 028	7 x 1,0	7.3	79.2	107
0076 040	10 x 1,0	9.7	116.5	162
0076 041	12 x 1,0	10.0	136.9	186
0076 060	16 x 1,0	11.1	178.0	238
0076 029	20 x 1,0	12.4	219.1	299
0076 042	25 x 1,0	14.3	271.4	373
0076 020	2 x 1,5	6.2	38.6	58
0076 013	3 x 1,5	6.5	53.6	75
0076 007	4 x 1,5	7.1	69.2	94
0076 043	5 x 1,5	7.9	88.9	120
0076 061	6 x 1,5	8.5	105.4	143
0076 001	7 x 1,5	8.5	119.8	152
0076 021	10 x 1,5	11.2	168.4	222
0076 062	12 x 1,5	11.8	198.2	261
0076 063	16 x 1,5	13.0	258.9	335
0076 064	20 x 1,5	14.6	320.1	422
0076 065	25 x 1,5	16.6	404.6	524
0076 044	2 x 2,5	7.0	59.4	79
0076 024	3 x 2,5	7.4	84.2	105
0076 045	4 x 2,5	8.2	113.7	137
0076 066	5 x 2,5	9.0	139.8	170
0076 067	6 x 2,5	10.2	165.8	213
0076 025	7 x 2,5	10.2	189.8	228
0076 068	10 x 2,5	13.1	268.8	325
0076 069	12 x 2,5	13.6	318.1	376
0076 070	16 x 2,5	15.3	424.6	502

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## RD-H(St)H nx2x0,5 mm<sup>2</sup> Bd

### UNIT TYPE CONTROL CABLES FOR POWER STATIONS



### APPLICATIONS

RD-H(St)H n x 2 x 0,5 mm<sup>2</sup> Bd are unit type control cables intended for analogue or digital data transmission up to 10 kHz.

Pair lay lengths are designed to ensure minimum near-end cross-talks in units.

An electrostatic shield protects the cables against interference by external electric fields.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are suitable for indoor installations connecting fixed and movable equipment.

The cable is also suitable for Maxi-Termi-Point jointing technique.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), regular construction 7 wires,
- insulation made of halogen free compound (HFFR),
- insulated conductors twisted into pairs, star-quad assembly in the case of two-pair cable, colour of insulated conductors:

pair number	"a" wire	"b" wire
1	blue	red
2	grey	yellow
3	green	brown
4	white	black

- four pairs stranded into a unit and bound up with a polypropylene binder marked with unit number,
- units laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.5 mm<sup>2</sup> (7x0.3 mm),
- cable sheath made of halogen free compound (HFFR), grey (RAL 7001), other colours also available.

### AVAILABLE UPON REQUEST

RD-H(St)HH n x 2 x 0,5 mm<sup>2</sup> Bd - cables with double HFFR sheath, suitable for outdoor installation and direct earth burial.

## RD-H(St)H nx2x0,5 mm<sup>2</sup> Bd

### CHARACTERISTICS

Operating voltage, peak value	600 V	Operating temperature range	
Voltage test		for fixed installation	from - 30 to + 80°C
conductor/conductor	2.0 kV rms	for movable installation	from - 5 to + 70°C
conductor/screen	2.0 kV rms	Minimum bending radius	10 x cable diameter
DC loop resistance at 20°C, maximum	73.6 Ω/km	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Insulation resistance, minimum	100 MΩ·km	pH appr.	6.8
Current-carrying capacity limit	6 A	conductivity appr.	0.4 μS/mm
Mutual capacitance at 800 Hz, maximum	100 nF/km*)	Smoke density	PN-EN 61034-2, IEC 61034-2
Near-end cross-talk at 10 kHz, minimum	60 dB/km	light transmittance, minimum	70 %
Characteristic impedance, nominal		Cable combustibility	flame retardant
at 1 kHz	370 Ω	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
at 10 kHz	130 Ω	Reference standards	DIN VDE 0815
Attenuation loss, nominal			
at 1 kHz	1.2 dB/km		
at 10 kHz	3.0 dB/km		

\*) this value can be higher by 20 % in four or less pair cable

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0217 003	2 x 2 x 0,5	5.8	26.0	60
0217 004	4 x 2 x 0,5	8.4	46.0	103
0217 001	8 x 2 x 0,5	12.6	86.0	195
0217 005	12 x 2 x 0,5	13.1	127.0	250

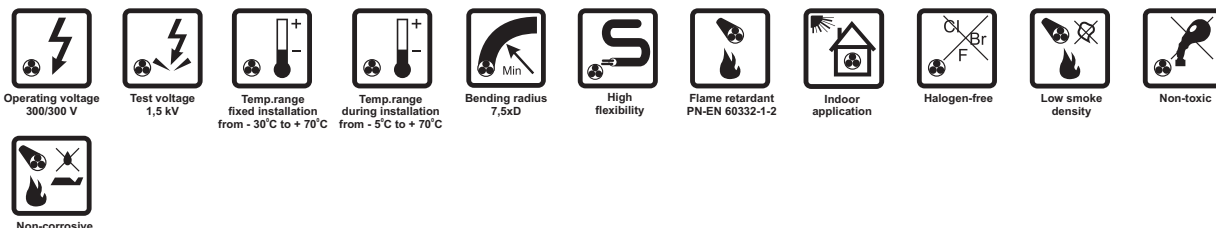
Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0217 006	16 x 2 x 0,5	15.0	167.0	310
0217 010	24 x 2 x 0,5	19.0	250.0	485
0217 007	32 x 2 x 0,5	20.9	331.0	615
0217 008	48 x 2 x 0,5	25.3	494.0	905

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## LiH

### HALOGEN FREE HOOK-UP WIRES



### APPLICATIONS

LiH are hook-up wires intended for control and instrumentation circuits, for signal, monitoring and data processing systems, all for industrial electronic applications.

Halogen free wires, applied when higher safety in case of fire is required. The wires are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

They are designed for control cabinets, electronic devices and others as interconnection cables for electronic modules, equipment and instruments.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- insulation made of halogen free compound (HFFR) - coloured according to customer's requirement.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	39.0	26.0	19.5	13.3	7.98

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installation	from - 30 to + 70°C
Voltage test	1.5 kV rms	for movable installation	from - 5 to + 70°C
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Minimum bending radius	7.5 x wire diameter
pH appr.	6.8	Wire combustibility	flame retardant
conductivity appr.	0.4 μS/mm	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Smoke density	PN-EN 61034-2, IEC 61034-2	Reference standards	DIN VDE 0815
minimum light transmittance	70 %		

Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0075 008	1 x 0,5	1.65	4.8	6.4
0075 007	1 x 0,75	1.83	7.2	8.5

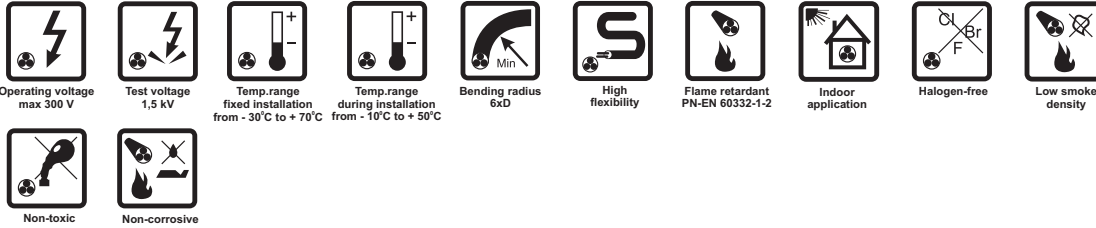
Product No.	Number of conductors x conductor cross-section	Wire outer diameter (appr.)	Copper index	Wire weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0075 009	1 x 1,0	2.0	9.6	11.0
0075 010	1 x 1,5	2.3	14.4	15.5
0075 006	1 x 2,5	2.7	24.0	24.0

Other conductor cross-sections available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## IPG-HF

### HALOGEN FREE LOUDSPEAKER CABLES



### APPLICATIONS

Loudspeaker cables with halogen free insulation **IPG-HF** are intended for connection between amplifiers and loudspeakers.

Halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

The cables are made as flat with common halogen free insulation (eight shape) on two parallel conductors or as halogen free insulated and sheathed round cables.

The cables are suitable for indoor installations connecting fixed and movable equipment.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires,
- insulation made of halogen free compound (HFFR) - the colours of conductor insulation:  
black with white strip, other colours also available - for flat cables,  
natural with black marking printed on it - for round cables,
- sheath made of halogen free compound (HFFR), only for round cable, coloured according to customer's requirement.

### AVAILABLE UPON REQUEST

**IPG-HF OFC** - cables with conductors made of oxygen-free copper (OFC).

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1.5	2.5	4	6	10
DC conductor resistance at 20°C, maximum	Ω/km	13.3	7.98	4.95	3.3	1.91
Inductance, approximate	mH/km	30	9	4	2	1.5
Operating voltage, maximum	300 V	Operating temperature range for fixed installation		from - 30 to + 70°C		
Insulation resistance, minimum	200 MΩ·km	for movable installation		from - 10 to + 50°C		
Corrosivity of emitted gases per pH appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Minimum bending radius		6 x cable height		
conductivity appr.	6.8	Cable combustibility		flame retardant		
Smoke density minimum light transmittance	0.4 μS/mm	Combustibility tests		PN-EN 60332-1-2, IEC 60332-1-2		
	PN-EN 61034-2, IEC 61034-2					
	70 %					

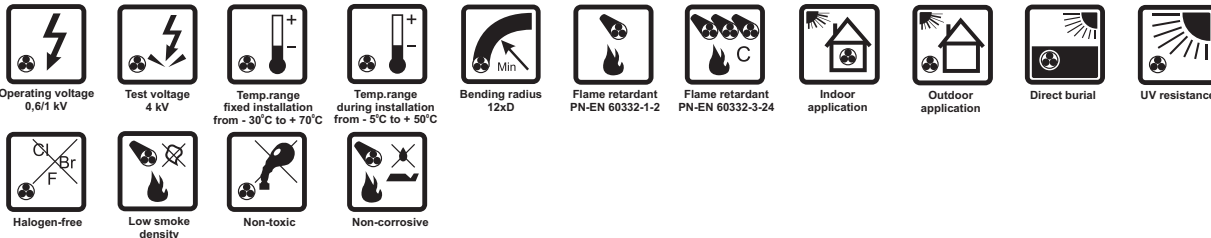
Product No.	Number of conductors x conductor cross-section	Cable dimensions (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable dimensions (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km		mm <sup>2</sup>	mm	kg/km	kg/km
1114 003	2 x 2,5	3.4x6.9	48.0	59.0	1114 005	2 x 10,0	6.8x13.8	192.0	257.0
1114 002	2 x 4,0	4.1x8.4	76.8	93.0	1114 006	4 x 4,0	12.9	153.6	257.0
1114 004	2 x 6,0	5.8x11.7	115.2	166.0	1114 007	4 x 6,0	14.8	230.4	362.0

Other construction of conductors and cable dimensions available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## XnKSXSzo-Nr 0,6/1 kV, XnKSXS-Nr 0,6/1 kV

### XLPE INSULATED AND HALOGEN FREE SHEATHED CONTROL CABLES



### APPLICATIONS

**XnKSXSzo-Nr 0,6/1 kV** and **XnKSXS-Nr 0,6/1 kV** control cables are designed for control, protection and monitoring systems in power engineering, also for electric power distribution.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Halogen free cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of class 1 per PN-EN 60228 standard,
- black cross-linked polyethylene (XLPE) insulation and white conductor number printed on it; a green-yellow protective conductor in the outer layer in **XnKSXSzo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape,
- cable sheath made of halogen free compound (HFFR), black, other colours also available.

### AVAILABLE UPON REQUEST

**XnKSwXSzo-Nr 0,6/1 kV** and **XnKSwXS-Nr 0,6/1 kV** - cables with inner covering extruded directly on a cable core, recommended for direct earth burial.

**Steel wire** or **steel tape armoured** cables as above applied in locations where enhanced protection against mechanical damages is required.

## XnKSXSžo-Nr 0,6/1 kV, XnKSXS-Nr 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	1	1,5	2,5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Corrosivity of emitted gases per IEC 60754-2	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	4 kV rms	pH, approximate	6.8
Insulation resistance, minimum	100 MΩ·km	conductivity, approximate	0.4 μS/mm
Conductor temperature limit in work conditions	+ 90°C	Smoke density per light transmittance minimum	PN-EN 61034-2, IEC 61034-2
Conductor temperature limit in short-circuit	+ 250°C		70 %
Temperature range during operation	from - 30 to + 70°C	Cable combustibility	flame retardant
Temperature range during installation	from - 5 to + 50°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24
Minimum bending radius	12 x cable diameter	Reference standards	IEC 60502-1, PN-HD 604 S1, DIN VDE 0266

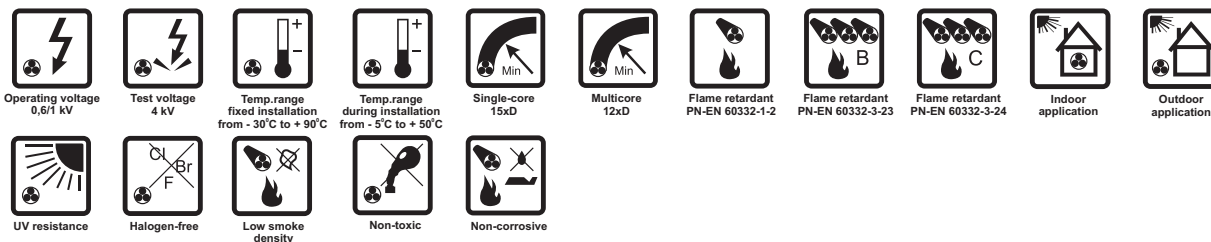
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1297 013	7 x 1	10.1	67.2	150
1297 006	10 x 1	12.4	96.0	202
1297 016	12 x 1	12.8	115.2	229
1297 005	14 x 1	13.4	134.4	257
1297 011	16 x 1	14.1	153.6	288
1297 017	19 x 1	14.8	182.4	326
1297 012	24 x 1	17.1	230.4	403
1297 007	30 x 1	18.0	288.0	480
1297 018	37 x 1	19.4	355.2	572
1297 014	48 x 1	22.2	460.8	732
1297 019	61 x 1	24.2	585.6	897
1297 001	7 x 1,5	10.9	100.8	189
1297 004	10 x 1,5	13.4	144.0	258
1297 020	12 x 1,5	13.8	172.8	294
1297 002	14 x 1,5	14.5	201.6	332
1297 021	16 x 1,5	15.2	230.4	373
1297 022	19 x 1,5	16.0	273.6	426
1297 010	24 x 1,5	18.5	345.6	528
1297 023	30 x 1,5	19.6	432.0	635
1297 024	37 x 1,5	21.1	532.8	761
1297 015	48 x 1,5	24.3	691.2	973
1297 025	61 x 1,5	26.6	878.4	1216
1297 026	7 x 2,5	12.0	168.0	260
1297 027	10 x 2,5	14.9	240.0	359

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1297 028	12 x 2,5	15.4	288.0	413
1297 029	14 x 2,5	16.2	336.0	470
1297 030	16 x 2,5	17.0	384.0	531
1297 031	19 x 2,5	17.9	456.0	610
1297 032	24 x 2,5	20.8	576.0	760
1297 003	30 x 2,5	22.2	720.0	932
1297 033	37 x 2,5	23.9	888.0	1118
1297 034	48 x 2,5	27.5	1152.0	1437
1297 035	7 x 4	13.4	268.8	367
1297 036	10 x 4	16.8	384.0	512
1297 037	12 x 4	17.3	460.8	590
1297 038	14 x 4	18.2	537.6	675
1297 039	16 x 4	19.2	614.4	765
1297 040	7 x 6	14.9	403.2	504
1297 041	10 x 6	18.8	576.0	706
1297 042	12 x 6	19.4	691.2	820
1297 043	14 x 6	20.4	806.4	941
1297 044	7 x 10	17.3	672.0	778
1297 045	10 x 10	22.2	960.0	1106
1297 046	7 x 16	20.0	1075.2	1167
1297 047	10 x 16	26.0	1536.0	1662

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## N2XH-O 0,6/1 kV, N2XH-J 0,6/1 kV

### XLPE INSULATED AND HALOGEN FREE MATERIAL SHEATHED CONTROL CABLES



## APPLICATIONS

**N2XH-O 0,6/1 kV** and **N2XH-J 0,6/1 kV** power cables are designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering.

The cables are suitable for industrial applications, such as production plants or air-conditioning systems operating in dry and wet locations, also for outdoor installations. Cables can be laid in concrete. Laying cables in water or direct earth burial is only permitted if additional protection is used.

Halogen free cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 circular single-wire,
  - RM** - class 2 circular multi-wire,
  - SM** - class 2 sector shaped multi-wire.
- cross-linked polyethylene (XLPE) insulation, colours:
  - in accordance with PN-HD 308 standard,
  - or black and white conductor number printed on it;
  - green-yellow protective conductor in the outer layer in **N2XH-J 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound (HFFR),
- cable sheath made of halogen free compound (HFFR), black, other colours also available.

## AVAILABLE UPON REQUEST

**Steel wire** or **steel tape armoured** cables as above applied in locations where enhanced protection against mechanical damages is required.

## N2XH-O 0,6/1 kV, N2XH-J 0,6/1 kV

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>1,5</b>	<b>2,5</b>	<b>4</b>	<b>6</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>
DC conductor resistance at 20°C, maximum	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524
Conductor cross-section	mm <sup>2</sup>	<b>50</b>	<b>70</b>	<b>95</b>	<b>120</b>	<b>150</b>	<b>185</b>	<b>240</b>	<b>300</b>
DC conductor resistance at 20°C, maximum	Ω/km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601

Operating voltage U <sub>o</sub> /U	0.6/1 kV	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2,
Voltage test	4.0 kV rms		IEC 60754-2
Insulation resistance, minimum	100 MΩ·km	pH, approximate	6.8
Conductor temperature limit in work conditions	+ 90°C	conductivity, approximate	0.4 μS/mm
in short-circuit	+ 250°C	Smoke density per	PN-EN 61034-2, IEC 61034-2
Operating temperature range during operation	from -30 to +90°C	light transmittance, minimum	70 %
during installation	from -5 to +50°C	Cable combustibility	flame retardant
Minimum bending radius: single core cables	15 x cable diameter	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2,
multi core cables	12 x cable diameter	≥ 25 mm <sup>2</sup>	PN-EN 60332-3-23, IEC 60332-3-23 (cat. B)
		< 25 mm <sup>2</sup>	PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	PN-HD 604 S1, IEC 60502-1,
			DIN VDE 0276 part 604

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
N2XH-O					
0968 075	1 x 4 RE	6.2	38.4	75	0.22
0968 013	1 x 6 RE	6.7	57.6	97	0.25
0968 012	1 x 10 RE	7.5	96.0	139	0.30
0968 011	1 x 16 RE	8.4	153.6	198	0.36
0968 010	1 x 25 RM	10.3	240.0	296	0.50
0968 009	1 x 35 RM	11.3	336.0	389	0.57
0968 008	1 x 50 RM	12.7	480.0	517	0.71
0968 007	1 x 70 RM	14.5	672.0	718	0.83
0968 006	1 x 95 RM	16.4	912.0	1012	1.00
0968 005	1 x 120 RM	18.1	1152.0	1207	1.14
0968 027	1 x 150 RM	20.0	1440.0	1501	1.49
0968 025	1 x 185 RM	22.4	1776.0	1872	1.77
0968 004	1 x 240 RM	24.8	2304.0	2385	2.18
0968 093	1 x 300 RM	27.0	2880.0	2951	2.46
N2XH-O					
0968 078	2 x 1,5 RE	7.9	28.8	102	0.49
0968 036	2 x 2,5 RE	8.7	48.0	133	0.57
0968 074	2 x 4 RE	9.6	76.8	175	0.69
0968 023	2 x 6 RE	10.6	115.2	230	0.81
0968 076	2 x 10 RE	12.2	192.0	335	1.03
0968 002	2 x 16 RE	14.0	307.2	481	1.35
0968 081	2 x 25 RM	17.9	480.0	757	2.04
0968 094	2 x 35 RM	20.0	672.0	996	2.47
0968 097	2 x 50 RM	22.9	960.0	1338	3.30
0968 095	2 x 70 RM	26.8	1344.0	1882	4.11
0968 096	2 x 95 RM	30.3	1824.0	2594	5.16
0968 098	2 x 120 RM	34.1	2304.0	3179	6.02

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
N2XH-J					
0968 022	3 x 1,5 RE	8.3	43.2	117	0.52
0968 016	3 x 2,5 RE	9.1	72.0	155	0.60
0968 015	3 x 4 RE	10.1	115.2	210	0.72
0968 026	3 x 6 RE	11.2	172.8	281	0.84
0968 032	3 x 10 RE	12.9	288.0	419	1.05
0968 033	3 x 16 RE	14.9	460.8	614	1.35
0968 034	3 x 25 RM	19.1	720.0	962	2.07
0968 050	3 x 35 RM	21.6	1008.0	1290	2.41
0968 099	3 x 50 RM	24.5	1440.0	1725	3.24
0968 090	3 x 70 RM	28.6	2016.0	2431	3.94
0968 100	3 x 95 RM	32.6	2736.0	3409	4.85
0968 101	3 x 120 RM	36.4	3456.0	4133	5.71
N2XH-J					
0968 045	4 x 1,5 RE	9.0	57.6	139	0.59
0968 037	4 x 2,5 RE	9.9	96.0	186	0.69
0968 049	4 x 4 RE	11.0	153.6	256	0.82
0968 047	4 x 6 RE	12.2	230.4	344	0.95
0968 018	4 x 10 RE	14.1	384.0	519	1.22
0968 017	4 x 16 RE	16.5	614.4	774	1.52
0968 055	4 x 25 RM	21.2	960.0	1211	2.31
0968 085	4 x 35 RM	23.8	1344.0	1619	2.68
0968 054	4 x 50 RM	27.2	1920.0	2184	3.59
0968 060	4 x 70 RM	31.8	2688.0	3085	4.44
0968 053	4 x 95 RM	36.4	3648.0	4364	5.42
0968 068	4 x 120 RM	40.6	4608.0	5266	6.28

**N2XH-O 0,6/1 kV, N2XH-J 0,6/1 kV**

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load
		mm <sup>2</sup>	mm	kg/km	kWh/m
N2XH-J					
0968 038	5 x 1,5 RE	9.7	72.0	173	0.67
0968 019	5 x 2,5 RE	10.7	120.0	234	0.78
0968 020	5 x 4 RE	12.0	192.0	325	0.92
0968 029	5 x 6 RE	13.3	288.0	440	1.08
0968 021	5 x 10 RE	15.7	480.0	674	1.37
0968 028	5 x 16 RE	18.1	768.0	995	1.70

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load
		mm <sup>2</sup>	mm	kg/km	kWh/m
0968 041	5 x 25 RM	23.4	1200.0	1569	2.60
0968 014	5 x 35 RM	26.4	1680.0	2104	3.07
0968 031	5 x 50 RM	30.1	2400.0	2834	4.10
0968 051	5 x 70 RM	35.6	3360.0	4043	5.04
0968 030	5 x 95 RM	40.5	4560.0	5671	6.09
0968 079	5 x 120 RM	45.1	5760.0	6845	7.05

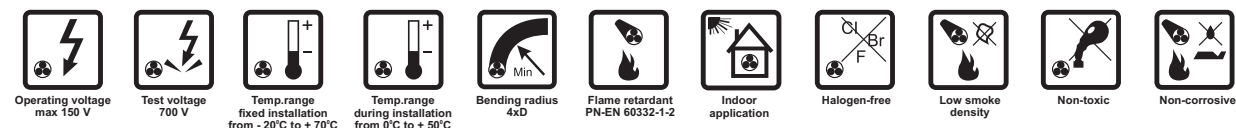
Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load
		mm <sup>2</sup>	mm	kg/km	kWh/m
N2XH-JZ					
0968 061	7 x 1,5	10.5	100.8	201	0.81
0968 039	10 x 1,5	13.0	144.0	280	1.11
0968 086	12 x 1,5	13.4	172.8	313	1.25
0968 040	14 x 1,5	14.1	201.6	351	1.38
0968 073	19 x 1,5	15.8	273.6	453	1.70
0968 064	24 x 1,5	18.3	345.6	565	2.21
0968 001	30 x 1,5	19.4	432.0	670	2.56
0968 108	40 x 1,5	21.9	576.0	950	3.20
N2XH-JZ					
0968 065	7 x 2,5	11.6	168.0	276	0.95
0968 062	10 x 2,5	14.5	240.0	389	1.34
0968 102	12 x 2,5	15.0	288.0	440	1.46

Product No.	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load
		mm <sup>2</sup>	mm	kg/km	kWh/m
0968 103	14 x 2,5	16.0	336.0	504	1.62
0968 104	19 x 2,5	17.7	456.0	645	1.99
0968 105	24 x 2,5	20.8	576.0	819	2.60
0968 106	30 x 2,5	22.0	720.0	977	3.02
0968 066	40 x 2,5	24.6	960.0	1390	3.83
N2XH-JZ					
0968 077	7 x 4	13.0	268.8	390	1.12
0968 109	10 x 4	16.6	384.0	562	1.60
0968 107	12 x 4	17.1	460.8	638	1.74
0968 110	14 x 4	18.0	537.6	723	1.92
0968 111	19 x 4	20.0	729.6	936	2.42

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## UTP-H kat.5e 4x2x0,5 mm – 155 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

UTP-H kat.5e 4x2x0,5 mm cables are intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

Halogen free material sheathed cable is applied in locations where, in case of fire, higher safety for human beings and property is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable sheath made of halogen free compound (HFFR), orange, other colours also available.

## UTP-H kat.5e 4x2x0,5 mm – 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	DC loop resistance at 20°C, maximum	188 Ω/km
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Resistance unbalance of any pair of conductors, max.	2 %
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay T	534+36/√f ns/100 m
Operating voltage	150 V	Corrosivity of emitted gases per pH appr.	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	700 V rms	conductivity appr.	6.8
Velocity of propagation	65 %	Smoke density	0.4 μS/mm
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	light transmittance, minimum	PN-EN 61034-2, IEC 61034-2
Return loss, minimum at f=10÷20 MHz	25 dB	Operating temperature range during operation	70 %
Return loss, minimum at f=20÷155 MHz	25-7 lg(f/20) dB	during installation	from - 20 to + 70°C
		Minimum bending radius	from 0 to + 50°C
		Cable combustibility	4 x cable diameter
		Combustibility tests	flame retardant
		Reference standards	PN-EN 60332-1-2, IEC 60332-1-2
			PN-EN 50288-3-1, IEC 61156-5
			ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
a	[dB/100 m]	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22	28.1

#### Near end cross-talk between pairs, minimum

f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	[dB]	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	[dB]	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	[dB]	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

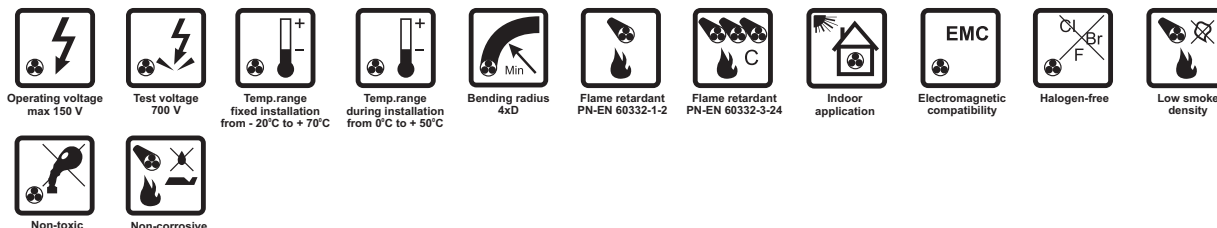
f	[MHz]	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	[dB]	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	[dB]	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0252 008	4 x 2 x 0,5	6.4	16.3	45

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## FTP-H kat.5e 4x2x0,5 mm - 155 MHz

### LOCAL AREA NETWORK CABLES



### APPLICATIONS

FTP-H kat.5e 4x2x0,5 mm cable is intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks sensitive to electromagnetic interferences.

The cable is protected by an overall electrostatic shield against external electric interferences and prevents emission of interferences produced in the cable.

The cables are also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

Halogen free material sheathed cable is applied in locations where, in case of fire, higher safety for human beings and property is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- annealed copper single wire conductors of diameter 0.51 mm, 24 AWG,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- collective shield, incorporating aluminium-polyester tape and annealed tinned copper single drain wire of diameter 0.5 mm,
- cable sheath made of halogen free compound (HFFR), grey RAL 7035, other colours also available.



## FTP-H kat.5e 4x2x0,5 mm - 155 MHz

### CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	DC loop resistance at 20°C, maximum	188 Ω/km
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km	Resistance unbalance of any pair of conductors, max.	2 %
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay T	534+36/√f ns/100 m
Operating voltage	150 V	Corrosivity of emitted gases per	very low, halogen free PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	700 V rms	pH appr.	6.8
Velocity of propagation	65 %	conductivity appr.	0.4 μS/mm
Return loss, minimum at f=4÷10 MHz	20+5lg(f) dB	Smoke density	low smoke density PN-EN 61034-2, IEC 61034-2
Return loss, minimum at f=10÷20 MHz	25 dB	light transmittance, minimum	70 %
Return loss, minimum at f=20÷155 MHz	25-8.6lg(f/20)dB	Operating temperature range during operation	from - 20 to + 70°C
Minimum shielding attenuation at the frequency f=30 ÷ 1000 MHz	50 dB	during installation	from 0 to + 50°C
Shielding impedance at 10 MHz, maximum	100 mΩ/m	Minimum bending radius	4 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
		Reference standards	PN-EN 50288-2-1, IEC 61156-5 ISO/IEC 11801, TIA/EIA 568 A

#### Attenuation loss, maximum

f	MHz	1	4	8	10	16	20	25	31.25	62.5	100	155
a	dB/100 m	2.1	4.3	5.9	6.6	8.2	9.2	10.5	11.8	17.1	22	28.1

#### Near end cross-talk between pairs, minimum

f	MHz	1	4	8	10	16	20	25	31.25	62.5	100	155
NEXT	dB	65.3	56.3	51.8	50.3	47.3	45.8	44.3	42.9	38.4	35.3	32.5
PSNEXT	dB	62.3	53.3	48.8	47.3	44.3	42.8	41.3	39.9	35.4	32.3	29.5
ACR	dB	68.3	57.2	51.0	48.8	44.0	41.5	38.9	36.2	26.4	18.3	4.4

#### Far end cross-talk between pairs, minimum

f	MHz	1	4	8	10	16	20	25	31.25	62.5	100	155
ELFEXT	dB	63.8	51.7	45.7	43.8	39.7	37.7	35.8	33.9	27.8	23.8	19.9
PSELFEXT	dB	60.8	48.7	42.7	40.8	36.7	34.7	32.8	30.9	24.8	20.8	16.9

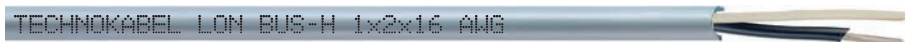
Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
0503 002	4 x 2 x 0,5	6.1	17.6	46.2

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## LON BUS-H 1x2x16 AWG

(equivalent: BELDEN 8471NH)

### LONWORKS CABLE



### APPLICATIONS

LON BUS-H 1x2x16 AWG cable is intended for wiring LONWORKS bus in automation systems.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

### CONSTRUCTION

- 16 AWG flexible multiwire conductors, stranded of annealed tin-plated copper wires (19x0.29 mm),
- insulation made of halogen free compound (HFFR), identification colour code: white, black,
- insulated conductors twisted into pair,
- cable sheath made of halogen free compound (HFFR), grey RAL 7037, other colours also available.

### CHARACTERISTICS

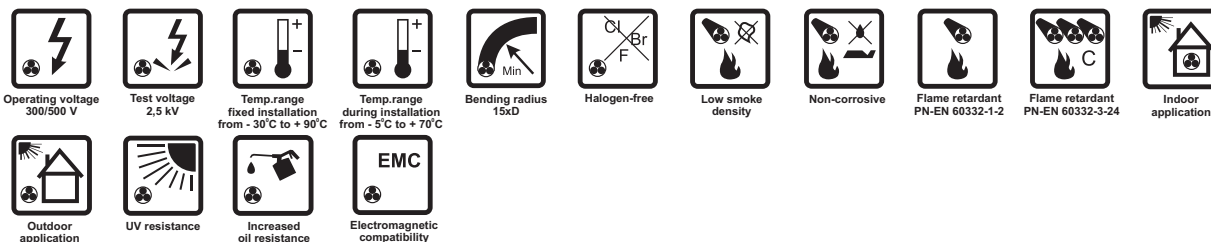
Operating voltage	300 V	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2
Mutual capacitance at 1 kHz, maximum	80 nF/km	pH, appr.	IEC 60754-2
Insulation resistance, minimum	100 MΩ·km	conductivity, appr.	6.8
Inductance, approximate	0.6 mH/km	Smoke density	0.4 μS/mm
Voltage test	1500 V rms	minimum light transmittance	PN-EN 61034-2, IEC 61034-2
DC loop resistance at 20°C, maximum	29.6 Ω/km	Operating temperature range	70 %
		Minimum bending radius	from -20 to +80 °C
		Cable combustibility	15 x cable diameter
		Combustibility tests	flame retardant
		Reference standards	PN-EN 60332-1-2, IEC 60332-1-2
			IEC 61158, PN-EN 50170

Product No.	Number of pairs (x 2) x conductor size	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	AWG	mm	kg/km	kg/km
0901 002	1 x 2 x 16	6.9	25.8	62

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## EGSF SHX, EGFA SHX (according to: NF M 87-202)

### INSTRUMENTATION CABLES



### APPLICATIONS

**EGSF SHX** and **EGFA SHX** instrumentation cables are intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications, allowing particularly for conditions met in chemical, petrochemical and paper industries. The cables are protected by an overall electrostatic shield against external electric interferences.

Steel tape armour in **EGFA SHX** cables offers enhanced protection against mechanical damages and rodent attack.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for fixed indoor and outdoor installations.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are oil-resistant and offer enhanced resistance to aliphatic hydrocarbons.

### CONSTRUCTION

- bare annealed copper wire conductors,
  - 05** – 0.50 mm<sup>2</sup> (1x0.8 mm),
  - 09** – 0.88 mm<sup>2</sup> (7x0.4 mm)
  - 15** – 1.50 mm<sup>2</sup> (7x0.52 mm),
- insulation made of cross-linked halogen free compound,
- insulated conductors twisted into:
  - pairs **IP** - colour code: white and red insulation and pair number printed on it,
  - triads **IT** - colour code: white, red and blue insulation and triad number printed on it,
  - quads **IQ** - colour code: white, red, blue and yellow insulation for identification,
- pairs, triads or quads laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup> (7x0.2 mm),
- cable sheath made of cross-linked halogen free compound, blue (RAL 5012), other colours also available,
- steel tape armour for **EGFA SHX** cable,
- cable covering made of cross-linked halogen free compound, blue (RAL 5012), other colours also available.

**EGSF SHX, EGFA SHX**  
(according to: NF M 87-202)

**CHARACTERISTICS**

DC loop resistance at 20°C,  
maximum:

0.50 mm <sup>2</sup> conductor	75.0 Ω/km
0.88 mm <sup>2</sup> conductor	42.8 Ω/km
1.50 mm <sup>2</sup> conductor	24.2 Ω/km

Resistance unbalance,  
maximum:

0.50 mm <sup>2</sup> conductor	1.120 Ω/km
0.88 mm <sup>2</sup> conductor	1.070 Ω/km
1.50 mm <sup>2</sup> conductor	0.605 Ω/km

Operating voltage Uo/U

300/500 V

Voltage test

conductor/conductor	2500 V rms
conductor/screen	2000 V rms

Insulation resistance, minimum

500 MΩ·km

Mutual capacitance, max (this value may be 30%  
higher for one pair or triad):

0.50 mm <sup>2</sup> conductor	145 nF/km
0.88 mm <sup>2</sup> conductor	160 nF/km
1.50 mm <sup>2</sup> conductor	150 nF/km

Operating temperature range  
during operation  
during installation

from - 30 to + 90°C  
from - 5 to + 70°C

Minimum bending radius

15 x cable diameter

Corrosivity of emitted gases  
per

very low, halogen free  
PN-EN 60754-1, PN-EN 60754-2,  
IEC 60754-2

pH appr.  
conductivity appr.

6.8  
0.4 μS/mm

Smoke density

low smoke density  
PN-EN 61034-2, IEC 61034-2

light transmittance,  
minimum

70 %

Resistance to aliphatic  
hydrocarbons

NF M 87-202 Annex A

Oil resistance

PN-EN 60811-404

Cable combustibility

flame retardant

Combustibility tests

PN-EN 50265-2-1, IEC 60332-1-2  
PN-EN 60332-3-24, IEC 60332-3-24

Reference standards

NF M 87-202

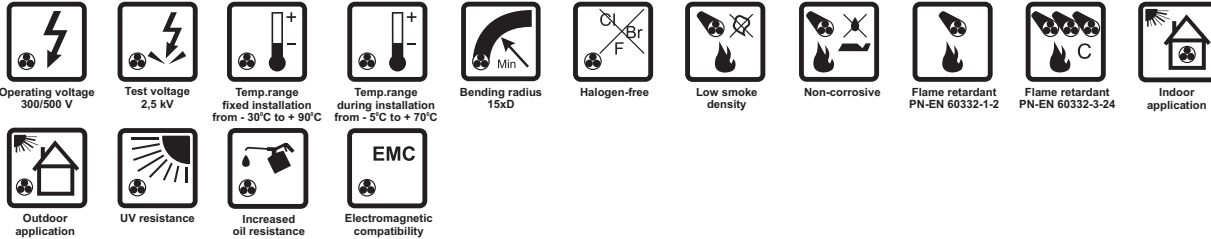
Product No.	Cable type	Number of pairs/triads/quads (x 2/3/4)	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		x conductor cross-section	(mm)		(kg/km)
		mm <sup>2</sup>	mm	kg/km	kg/km
1713 001	03 IP 05 EGSF SHX	3 x 2 x 0,5	8.4	31.0	84.0
1713 002	07 IP 05 EGSF SHX	7 x 2 x 0,5	10.9	70.0	157.0
1713 003	12 IP 05 EGSF SHX	12 x 2 x 0,5	13.9	118.0	255.0
1713 004	19 IP 05 EGSF SHX	19 x 2 x 0,5	17.1	185.0	388.0
1713 005	27 IP 05 EGSF SHX	27 x 2 x 0,5	19.0	262.0	510.0
1713 006	07 IT 05 EGSF SHX	7 x 3 x 0,5	12.4	103.0	219.0
1713 007	12 IT 05 EGSF SHX	12 x 3 x 0,5	15.9	175.0	366.0
1713 008	01 IP 09 EGSF SHX	1 x 2 x 0,88	6.6	20.0	60.0
1713 009	03 IP 09 EGSF SHX	3 x 2 x 0,88	10.3	53.0	126.0
1713 010	07 IP 09 EGSF SHX	7 x 2 x 0,88	13.7	121.0	252.0
1713 011	12 IP 09 EGSF SHX	12 x 2 x 0,88	17.5	205.0	412.0
1713 012	19 IP 09 EGSF SHX	19 x 2 x 0,88	21.3	324.0	621.0
1713 013	27 IP 09 EGSF SHX	27 x 2 x 0,88	25.1	459.0	864.0
1713 014	01 IT 09 EGSF SHX	1 x 3 x 0,88	7.0	28.0	70.0
1713 015	07 IT 09 EGSF SHX	7 x 3 x 0,88	15.8	180.0	363.0
1713 016	12 IT 09 EGSF SHX	12 x 3 x 0,88	20.0	307.0	595.0
1713 017	01 IQ 09 EGSF SHX	1 x 4 x 0,88	7.5	36.0	85.0
1714 001	03 IP 05 EGFA SHX	3 x 2 x 0,5	11.2	31.0	191.0
1714 002	07 IP 05 EGFA SHX	7 x 2 x 0,5	13.9	70.0	300.0
1714 003	12 IP 05 EGFA SHX	12 x 2 x 0,5	17.1	118.0	441.0

Product No.	Cable type	Number of pairs/triads/quads (x 2/3/4)	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		x conductor cross-section	(mm)		(kg/km)
		mm <sup>2</sup>	mm	kg/km	kg/km
1714 004	19 IP 05 EGFA SHX	19 x 2 x 0,5	20.5	185.0	624.0
1714 005	27 IP 05 EGFA SHX	27 x 2 x 0,5	24.0	262.0	810.0
1714 006	07 IT 05 EGFA SHX	7 x 3 x 0,5	15.6	103.0	387.0
1714 007	12 IT 05 EGFA SHX	12 x 3 x 0,5	19.3	175.0	586.0
1714 008	01 IP 09 EGFA SHX	1 x 2 x 0,88	9.4	20.0	167.0
1714 009	03 IP 09 EGFA SHX	3 x 2 x 0,88	13.3	53.0	261.0
1714 010	07 IP 09 EGFA SHX	7 x 2 x 0,88	16.9	121.0	436.0
1714 011	12 IP 09 EGFA SHX	12 x 2 x 0,88	20.9	205.0	653.0
1714 012	19 IP 09 EGFA SHX	19 x 2 x 0,88	25.1	324.0	936.0
1714 013	27 IP 09 EGFA SHX	27 x 2 x 0,88	29.1	459.0	1245.0
1714 014	01 IT 09 EGFA SHX	1 x 3 x 0,88	9.8	28.0	161.0
1714 015	07 IT 09 EGFA SHX	7 x 3 x 0,88	19.0	180.0	573.0
1714 016	12 IT 09 EGFA SHX	12 x 3 x 0,88	23.4	307.0	869.0
1714 017	01 IQ 09 EGFA SHX	1 x 4 x 0,88	10.3	36.0	182.0
1714 018	01 IP 15 EGFA SHX	1 x 2 x 1,5	10.7	28.0	161.0
1714 019	07 IP 15 EGFA SHX	7 x 2 x 1,5	20.6	180.0	573.0
1714 020	12 IP 15 EGFA SHX	12 x 2 x 1,5	25.7	307.0	869.0

Other cross-sections and pair, triad or quad counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## EISF SHX, EIFA SHX (according to: NF M 87-202)

### INSTRUMENTATION CABLES



### APPLICATIONS

**EISF SHX** and **EIFA SHX** instrumentation cables are intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications, allowing particularly for conditions met in chemical, petrochemical and paper industries.

The cables are protected by an overall electrostatic shield against external electric interferences.

Shielded pair structure substantially decreases mutual influence between signals transmitted along the cable.

Steel tape armour in **EIFA SHX** cables offers enhanced protection against mechanical damages and rodent attack.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for fixed indoor and outdoor installations.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are oil-resistant and offer enhanced resistance to aliphatic hydrocarbons.

### CONSTRUCTION

- bare annealed copper wire conductors,
  - 05** – 0.50 mm<sup>2</sup> (1x0.8 mm),
  - 09** – 0.88 mm<sup>2</sup> (7x0.4 mm)
  - 15** – 1.50 mm<sup>2</sup> (7x0.52 mm),
- insulation made of cross-linked halogen free compound,
- insulated conductors twisted into,
  - pairs **IP** - colour code insulation: white and red,
  - triads **IT** - colour code insulation: white, red and blue,
- pair/triad electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup> (7x0.2 mm),
- sheath of shielded pairs/triads made of cross-linked halogen free compound, blue (RAL 5012), other colours also available and printed black number of pair or triad,
- shielded and sheathed pairs or triads laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.22 mm<sup>2</sup> (7x0.2 mm), number of drain wires from 1 to 3 depending on the cable core diameter,
- cable sheath made of cross-linked halogen free compound, blue (RAL 5012), other colours also available,
- steel tape armour for **EIFA SHX** cable,
- cable covering made of cross-linked halogen free compound, blue (RAL 5012), other colours also available.

**EISF SHX, EIFA SHX**  
(according to: NF M 87-202)

**CHARACTERISTICS**

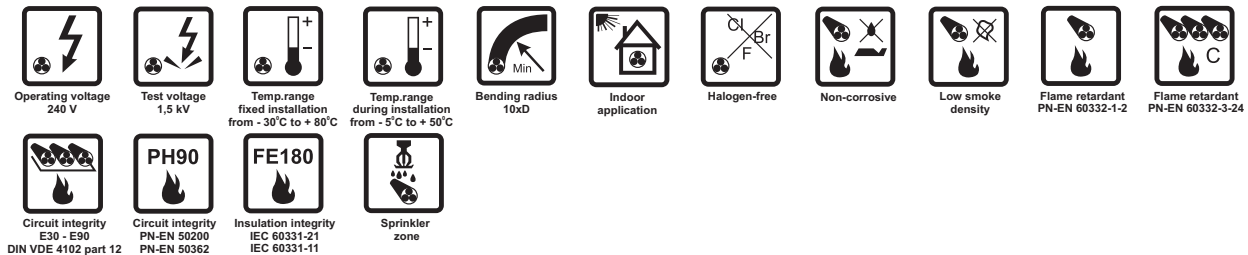
DC loop resistance at 20°C, maximum:		Operating temperature range during operation	from - 30 to + 90°C
0.50 mm <sup>2</sup> conductor	75.0 Ω/km	during installation	from - 5 to + 70°C
0.88 mm <sup>2</sup> conductor	42.8 Ω/km	Corrosivity of emitted gases per	very low, halogen free PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
1.50 mm <sup>2</sup> conductor	24.2 Ω/km	pH appr.	6.8
Resistance unbalance, maximum:		conductivity appr.	0.4 μS/mm
0.50 mm <sup>2</sup> conductor	1.120 Ω/km	Smoke density	low smoke density PN-EN 61034-2, IEC 61034-2
0.88 mm <sup>2</sup> conductor	1.070 Ω/km	light transmittance, minimum	70 %
1.50 mm <sup>2</sup> conductor	0.605 Ω/km	Minimum bending radius	15 x cable diameter
Operating voltage U <sub>o</sub> /U	300/500 V	Resistance to aliphatic hydrocarbons	NF M 87-202 Annex A
Voltage test conductor/conductor	2500 V rms	Oil resistance	PN-EN 60811-404
conductor/screen	2000 V rms	Cable combustibility	flame retardant
Insulation resistance, minimum	500 MΩ·km	Combustibility tests	PN-EN 50265-2-1, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24
Mutual capacitance, maximum:		Reference standards	NF M 87-202
0.50 mm <sup>2</sup> conductor	210 nF/km		
0.88 mm <sup>2</sup> conductor	230 nF/km		
1.50 mm <sup>2</sup> conductor	220 nF/km		

Product No.	Cable type	Number of pairs/triads (x 2/3) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Cable type	Number of pairs/triads (x 2/3) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
		mm <sup>2</sup>	mm	kg/km	kg/km			mm <sup>2</sup>	mm	kg/km	kg/km
1715 001	03 IP 05 EISF SHX	3 x 2 x 0,5	12.2	38.0	126.0	1716 001	03 IP 05 EIFA SHX	3 x 2 x 0,5	16.4	38.0	348.0
1715 002	07 IP 05 EISF SHX	7 x 2 x 0,5	17.6	87.0	339.0	1716 002	07 IP 05 EIFA SHX	7 x 2 x 0,5	21.0	87.0	581.0
1715 003	12 IP 05 EISF SHX	12 x 2 x 0,5	23.6	145.0	558.0	1716 003	12 IP 05 EIFA SHX	12 x 2 x 0,5	27.2	145.0	891.0
1715 004	19 IP 05 EISF SHX	19 x 2 x 0,5	29.4	229.0	867.0	1716 004	19 IP 05 EIFA SHX	19 x 2 x 0,5	33.0	229.0	1277.0
1715 005	07 IT 05 EISF SHX	7 x 3 x 0,5	18.2	120.0	399.0	1716 005	07 IT 05 EIFA SHX	7 x 3 x 0,5	21.6	120.0	649.0
1715 006	12 IT 05 EISF SHX	12 x 3 x 0,5	24.7	205.0	673.0	1716 006	12 IT 05 EIFA SHX	12 x 3 x 0,5	28.1	205.0	1006.0
1715 007	03 IP 09 EISF SHX	3 x 2 x 0,88	15.5	60.0	223.0	1716 007	03 IP 09 EIFA SHX	3 x 2 x 0,88	18.7	60.0	440.0
1715 008	07 IP 09 EISF SHX	7 x 2 x 0,88	20.8	138.0	470.0	1716 008	07 IP 09 EIFA SHX	7 x 2 x 0,88	24.2	138.0	754.0
1715 009	12 IP 09 EISF SHX	12 x 2 x 0,88	28.0	235.0	778.0	1716 009	12 IP 09 EIFA SHX	12 x 2 x 0,88	31.8	235.0	1184.0
1715 010	19 IP 09 EISF SHX	19 x 2 x 0,88	34.8	368.0	1207.0	1716 010	19 IP 09 EIFA SHX	19 x 2 x 0,88	38.8	368.0	1727.0
1715 011	07 IT 09 EISF SHX	7 x 3 x 0,88	21.7	197.0	574.0	1716 011	07 IT 09 EIFA SHX	7 x 3 x 0,88	25.3	197.0	882.0
1715 012	12 IT 09 EISF SHX	12 x 3 x 0,88	29.4	336.0	970.0	1716 012	12 IT 09 EIFA SHX	12 x 3 x 0,88	29.4	336.0	1397.0

Other cross-sections and pair or triad counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## HTKSH PH90, HTKSHekw PH90

### FIRE RESISTANT HALOGEN FREE CABLES



## APPLICATIONS

**HTKSH FE180 PH90/E30-E90** and **HTKSHekw FE180 PH90/E30-E90** fire resistant and halogen free cables intended for interconnections between switching and transmission equipment, for analogue or digital data transmission in industrial electronics and control applications all in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

Halogen free cables are applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – data are transmitted and power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. emergency lighting). The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with PN-EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

Cable circuits are protected by an overall electrostatic shield (**ekw**) against external electric field interferences.

The cables are suitable for fixed indoor installations.

## CONSTRUCTION

- bare annealed copper single wire round conductors,
- mica tape and halogen free compound insulation - colours in accordance with PN-92/T-90321 standard,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire – only in **HTKSHekw FE180 PH90/E30-E90**,
- red cable sheath made of halogen free compound type HM2 according to EN 50290-2-27 and VDE 0250-214 standard.

## HTKSH PH90, HTKSHekw PH90

### CHARACTERISTICS

Cable type			HTKSH FE180 PH90/E30-E90						HTKSHekw FE180 PH90/E30-E90					
Conductor diameter	mm		0.8	1.0	1.4	1.8	2.3	2.8	0.8	1.0	1.4	1.8	2.3	2.8
Conductor cross-section	mm <sup>2</sup>		0.5	0.75	1.5	2.5	4	6	0.5	0.75	1.5	2.5	4	6
DC loop resistance at 20°C, maximum	Ω/km		75	48	24.5	14.9	9.3	6.3	75	48	24.5	14.9	9.3	6.3
Mutual capacitance at 1 kHz	maximum	nF/km	120	120	120	120	120	120	200	200	200	200	200	200
	average		60	70	70	70	100	100	90	130	130	130	150	150

Operating voltage	240 V	Operating temperature range during operation	from - 30 to + 80°C
Voltage test	1.5 kV rms	during installation	from - 5 to + 50°C
Insulation resistance, minimum	500 MΩ·km	Minimum bending radius	10 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	flame retardant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	DIN 4102-12
conductivity, approximate	0.4 μS/mm	E30-E90	PN-EN 50200 or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	PH90	PN-EN 50200 or PN-EN 50362
light transmittance, minimum	70%	Insulation integrity FE180	IEC 60331-21; IEC 60331-11
		Reference standards	AT-0603-0098/2011/2016, WT-TK-43, PN-92/T-90321

\* Circuit integrity is dependent on installation method.

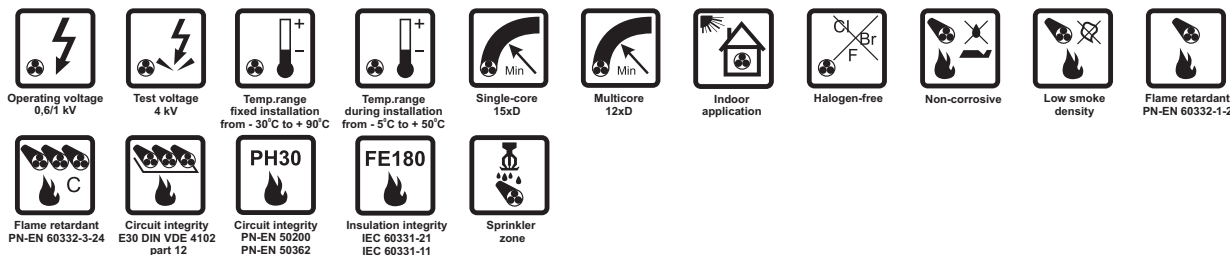
Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
HTKSH FE180 PH90/E30-E90				
1638 005	1 x 2 x 0.8	4.9	9.7	30
1638 004	2 x 2 x 0.8	7.6	19.3	57
1638 011	3 x 2 x 0.8	8.0	29.0	73
1638 014	4 x 2 x 0.8	8.8	38.6	90
1638 017	5 x 2 x 0.8	9.7	48.3	108
1638 019	7 x 2 x 0.8	10.5	67.6	139
1638 020	10 x 2 x 0.8	13.0	96.5	197
1638 007	1 x 2 x 1.0	5.3	15.1	37
1638 006	2 x 2 x 1.0	8.2	30.2	71
1638 012	3 x 2 x 1.0	8.7	45.2	92
1638 015	4 x 2 x 1.0	9.6	60.3	116
1638 018	5 x 2 x 1.0	10.5	75.4	139
1638 001	1 x 2 x 1.4	6.0	29.6	53
1638 008	2 x 2 x 1.4	9.5	59.1	104
1638 013	3 x 2 x 1.4	10.1	88.7	140
1638 016	4 x 2 x 1.4	11.3	118.2	184
1638 002	1 x 2 x 1.8	7.8	48.9	86
1638 010	2 x 2 x 1.8	12.3	97.7	171
1638 003	1 x 2 x 2.3	8.7	79.8	119
1638 009	1 x 2 x 2.8	9.7	118.2	159

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm	mm	kg/km	kg/km
HTKSHekw FE180 PH90/E30-E90				
1639 001	1 x 2 x 0.8	5.2	10.8	33
1639 006	2 x 2 x 0.8	7.7	20.5	60
1639 010	3 x 2 x 0.8	8.1	30.2	76
1639 007	4 x 2 x 0.8	8.9	39.8	94
1639 004	1 x 2 x 1.0	5.4	16.3	39
1639 012	2 x 2 x 1.0	8.3	31.4	74
1639 011	3 x 2 x 1.0	8.8	46.4	96
1639 020	4 x 2 x 1.0	9.7	61.5	120
1639 023	5 x 2 x 1.0	10.8	76.6	149
1639 029	8 x 2 x 1.0	12.6	121.8	217
1639 002	1 x 2 x 1.4	6.1	30.8	56
1639 009	2 x 2 x 1.4	9.6	60.3	108
1639 021	4 x 2 x 1.4	11.4	119.4	188
1639 024	5 x 2 x 1.4	12.6	149	228
1639 026	6 x 2 x 1.4	13.7	178.5	266
1639 003	1 x 2 x 1.8	7.9	50.1	89
1639 018	2 x 2 x 1.8	12.4	98.9	175
1639 005	1 x 2 x 2.3	8.8	81	122
1639 019	2 x 2 x 2.3	14.0	160.7	244
1639 008	1 x 2 x 2.8	9.8	119.4	163



## NHXH FE180 PH30/E30 0,6/1 kV, NHXH-J FE180 PH30/E30 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXH FE180 PH30/E30 0.6/1 kV** and **NHXH-J FE180 PH30/E30 0.6/1** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in **NHXH-J FE180 PH30/E30 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## NHXX FE180 PH30/E30 0,6/1 kV, NHXX-J FE180 PH30/E30 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit in work conditions	+ 90°C	single core cables	15 x cable diameter
in short-circuit	+ 250°C	multi core cables	12 x cable diameter
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Cable combustibility	fire resistant
pH, approximate	6.8	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
conductivity, approximate	0.4 μS/mm	Circuit integrity *	
Smoke density per	PN-EN 61034-2, IEC 61034-2	E30	DIN 4102-12
light transmittance, minimum	70%	PH30	PN-EN 50200 Annex E or PN-EN 50362
		Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\* Circuit integrity is dependent on installation method.

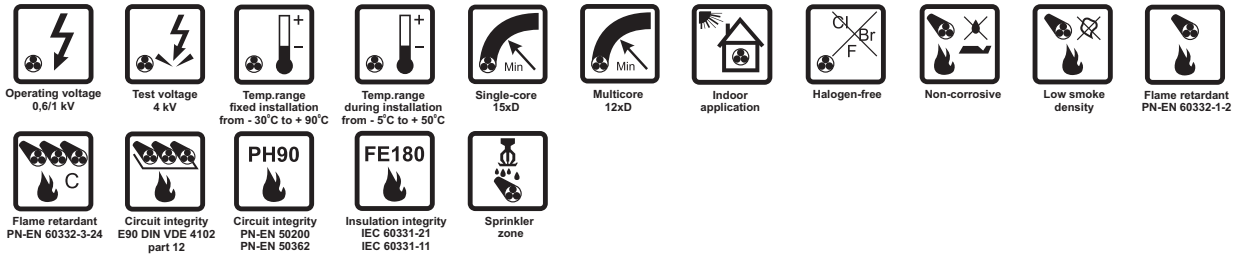
**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
NHXX FE180 PH30/E30 0,6/1 kV					
0699 151	1 x 6 RE	6.9	58.0	101	0.21
0699 152	1 x 10 RE	7.7	96.0	146	0.24
0699 157	1 x 16 RE	8.6	154.0	210	0.28
0699 080	1 x 25 RM	10.6	240.0	315	0.39
0699 023	1 x 35 RM	11.6	336.0	415	0.44
0699 024	1 x 50 RM	13.0	480.0	550	0.53
0699 025	1 x 70 RM	14.8	672.0	760	0.64
0699 026	1 x 95 RM	16.7	912.0	1070	0.76
0699 027	1 x 120 RM	18.4	1152.0	1280	0.88
0699 028	1 x 150 RM	20.5	1440.0	1600	1.10
0699 029	1 x 185 RM	22.4	1776.0	1990	1.29
0699 030	1 x 240 RM	25.1	2304.0	2570	1.51
0699 153	1 x 300 RM	27.5	2880.0	3150	1.77
0699 158	1 x 400 RM	30.8	3840.0	4300	2.17
0699 089	2 x 1,5 RE	9.3	28.8.0	137	0.50
0699 095	2 x 2,5 RE	10.1	48.0	171	0.57
0699 154	2 x 4 RE	11.0	77.0	220	0.67
0699 121	2 x 6 RE	12.0	115.0	280	0.78
0699 122	2 x 10 RE	13.6	192.0	395	0.98
0699 155	2 x 16 RE	15.6	307.0	565	1.26
0699 156	2 x 25 RM	19.5	480.0	870	1.93
NHXX-J FE180 PH30/E30 0,6/1 kV					
0699 010	3 x 1,5 RE	9.8	43.2	157	0.52
0699 011	3 x 2,5 RE	10.6	72.0	199	0.60
0699 031	3 x 4 RE	11.6	115.0	265	0.69
0699 105	3 x 6 RE	12.7	173.0	340	0.80
0699 136	3 x 10 RE	14.4	288.0	490	0.99
0699 032	3 x 16 RM	17.3	461.0	735	1.35
0699 078	3 x 25 RM	21.0	720.0	1110	1.97
0699 159	3 x 35 RM	23.3	1008.0	1450	2.34
0699 160	3 x 50 RM	26.4	1440.0	1930	2.96
0699 161	3 x 70 RM	30.3	2016.0	2680	3.79
0699 162	3 x 95 RM	34.3	2736.0	3750	4.69
0699 163	3 x 120 RM	38.0	3456.0	4500	5.70

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
0699 066	4 x 1,5 RE	10.6	58.0	185	0.59
0699 033	4 x 2,5 RE	11.5	96.0	245	0.68
0699 034	4 x 4 RE	12.7	154.0	325	0.79
0699 035	4 x 6 RE	13.8	230.0	420	0.92
0699 036	4 x 10 RE	16.0	384.0	620	1.17
0699 022	4 x 16 RM	19.0	614.0	920	1.54
0699 164	4 x 25 RM	23.1	960.0	1400	2.24
0699 019	4 x 35 RM	25.9	1344.0	1850	2.71
0699 067	4 x 50 RM	29.1	1920.0	2450	3.36
0699 165	4 x 70 RM	33.7	2688.0	3450	4.38
0699 112	4 x 95 RM	38.1	3648.0	4800	5.39
0699 037	5 x 1,5 RE	11.5	72.0	225	0.69
0699 038	5 x 2,5 RE	12.5	120.0	290	0.79
0699 039	5 x 4 RE	13.8	192.0	390	0.92
0699 040	5 x 6 RE	15.3	288.0	515	1.10
0699 009	5 x 10 RE	17.5	480.0	755	1.35
0699 041	5 x 16 RM	21.1	768.0	1140	1.84
0699 042	5 x 25 RM	25.6	1200.0	1720	2.68
0699 043	5 x 35 RM	28.5	1680.0	2260	3.18
0699 044	5 x 50 RM	32.4	2400.0	3050	4.02
0699 113	5 x 70 RM	37.5	3360.0	4250	5.23
0699 166	5 x 95 RM	42.4	4560.0	5900	6.43
0699 111	7 x 1,5 RE	12.5	101.0	275	0.77
0699 087	7 x 2,5 RE	13.6	168.0	360	0.89
0699 062	7 x 4 RE	15.2	269.0	465	1.06
0699 094	12 x 1,5 RE	16.3	173.0	440	1.20
0699 167	12 x 2,5 RE	17.9	288.0	585	1.37
0699 168	19 x 1,5 RE	19.0	274.0	625	1.57
0699 169	19 x 2,5 RE	21.1	456.0	855	1.85
0699 170	24 x 1,5 RE	22.3	346.0	800	2.02
0699 171	24 x 2,5 RE	24.6	576.0	1080	2.32
0699 172	30 x 1,5 RE	23.6	432.0	945	2.29
0699 173	30 x 2,5 RE	26.3	720.0	1300	2.68

Other diameters and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NHXH FE180 PH90/E90 0,6/1 kV, NHXH-J FE180 PH90/E90 0,6/1 kV FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXH FE180 PH90/E90 0,6/1 kV** and **NHXH-J FE180 PH90/E90 0,6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in **NHXH-J FE180 PH90/E90 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## NHXH FE180 PH90/E90 0,6/1 kV, NHXH-J FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit		single core cables	15 x cable diameter
in work conditions	+ 90°C	multi core cables	12 x cable diameter
in short-circuit	+ 250°C	Cable combustibility	fire resistant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	DIN 4102-12
conductivity, approximate	0.4 μS/mm	E90	PN-EN 50200 Annex E or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

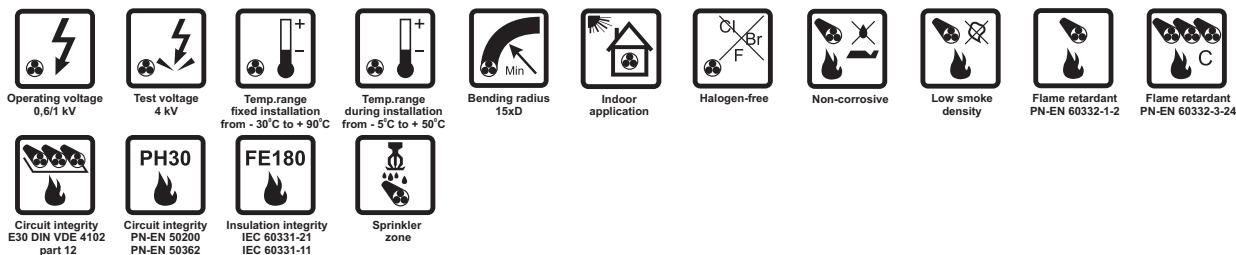
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
NHXH FE180 PH90/E90 0,6/1 kV					
0699 076	1 x 6 RE	7.3	58.0	108	0.23
0699 104	1 x 10 RE	8.1	96.0	152	0.26
0699 174	1 x 16 RE	9.0	154.0	215	0.30
0699 070	1 x 25 RM	11.0	240.0	325	0.41
0699 045	1 x 35 RM	12.0	336.0	425	0.46
0699 046	1 x 50 RM	13.4	480.0	560	0.55
0699 047	1 x 70 RM	15.4	672.0	780	0.69
0699 048	1 x 95 RM	17.1	912.0	1090	0.78
0699 049	1 x 120 RM	18.8	1152.0	1290	0.90
0699 050	1 x 150 RM	20.9	1440.0	1620	1.12
0699 051	1 x 185 RM	22.8	1776.0	2000	1.31
0699 052	1 x 240 RM	25.7	2304.0	2600	1.59
0699 135	1 x 300 RM	27.9	2880.0	3200	1.80
0699 175	1 x 400 RM	31.2	3840.0	4300	2.20
0699 013	2 x 1,5 RE	10.1	28.8	157	0.58
0699 002	2 x 2,5 RE	10.9	48.0	193	0.66
0699 176	2 x 4 RE	11.8	77.0	245	0.76
0699 177	2 x 6 RE	12.8	115.0	305	0.88
0699 129	2 x 10 RE	14.4	192.0	425	1.08
0699 130	2 x 16 RE	16.4	307.0	595	1.37
0699 132	2 x 25 RM	20.5	480.0	920	2.12
0699 183	2 x 240 RM	50.0	4608.0	6781	11.53
NHXH-J FE180 PH90/E90 0,6/1 kV					
0699 014	3 x 1,5 RE	10.7	43.2	178	0.60
0699 015	3 x 2,5 RE	11.5	72.0	225	0.68
0699 053	3 x 4 RE	12.5	115.0	290	0.78
0699 054	3 x 6 RE	13.5	173.0	370	0.90
0699 090	3 x 10 RE	15.5	288.0	530	1.13
0699 069	3 x 16 RM	18.2	461.0	770	1.47
0699 091	3 x 25 RM	21.8	720.0	1150	2.10
0699 072	3 x 35 RM	24.1	1008.0	1500	2.48
0699 073	3 x 50 RM	27.2	1440.0	1990	3.12
0699 074	3 x 70 RM	31.4	2016.0	2760	4.05
0699 134	3 x 95 RM	35.1	2736.0	3800	4.89
0699 149	3 x 120 RM	38.8	3456.0	4550	5.92
0699 127	4 x 1,0 RE	11.0	38.4	182	0.63

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
0699 001	4 x 1,5 RE	11.6	58.0	215	0.69
0699 055	4 x 2,5 RE	12.5	96.0	270	0.78
0699 056	4 x 4 RE	13.6	154.0	355	0.89
0699 020	4 x 6 RE	14.8	230.0	455	1.02
0699 057	4 x 10 RE	16.9	384.0	660	1.28
0699 012	4 x 16 RM	20.0	614.0	965	1.66
0699 071	4 x 25 RM	24.1	960.0	1450	2.39
0699 084	4 x 35 RM	26.8	1344.0	1910	2.88
0699 068	4 x 50 RM	30.1	1920.0	2520	3.54
0699 085	4 x 70 RM	34.7	2688.0	3550	4.59
0699 123	4 x 95 RM	39.1	3648.0	4900	5.62
0699 058	5 x 1,5 RE	12.6	72.0	255	0.79
0699 081	5 x 2,5 RE	13.6	120.0	325	0.90
0699 059	5 x 4 RE	14.9	192.0	425	1.04
0699 060	5 x 6 RE	16.4	288.0	555	1.22
0699 021	5 x 10 RE	18.6	480.0	800	1.49
0699 016	5 x 16 RM	22.1	768.0	1190	1.99
0699 061	5 x 25 RM	26.7	1200.0	1780	2.87
0699 017	5 x 35 RM	29.6	1680.0	2330	3.37
0699 018	5 x 50 RM	33.4	2400.0	3150	4.23
0699 075	5 x 70 RM	38.5	3360.0	4350	5.48
0699 088	5 x 95 RM	43.5	4560.0	6000	6.70
0699 003	7 x 1,5 RE	13.7	101.0	310	0.89
0699 004	7 x 2,5 RE	14.8	168.0	400	1.01
0699 133	7 x 4 RE	16.4	269.0	535	1.19
0699 119	12 x 1,5 RE	18.0	173.0	500	1.39
0699 150	12 x 2,5 RE	19.5	288.0	650	1.57
0699 098	14 x 1,5 RE	18.9	202.0	555	1.51
0699 128	19 x 1,5 RE	21.2	274.0	715	1.87
0699 143	19 x 2,5 RE	23.1	456.0	945	2.11
0699 118	24 x 1,5 RE	24.7	346.0	905	2.34
0699 178	24 x 2,5 RE	27.2	576.0	1210	2.71
0699 179	30 x 1,5 RE	26.4	432.0	1080	2.70
0699 180	30 x 2,5 RE	28.8	720.0	1440	3.06

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NHXCH FE180 PH30/E30 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXCH FE180 PH30/E30 0,6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## NHXCH FE180 PH30/E30 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	fire resistant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity*	
pH, approximate	6.8	E30	DIN 4102-12
conductivity, approximate	0.4 μS/mm	PH30	PN-EN 50200 Annex E or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

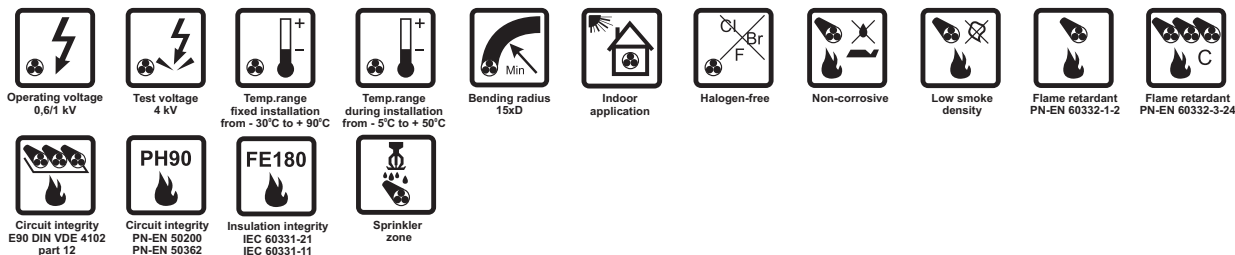
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
0700 021	2 x 1,5 RE/ 1,5	11.9	43.2	198	0.68
0700 032	2 x 2,5 RE/ 2,5	13.0	72.0	250	0.77
0700 019	2 x 4 RE/ 4	14.2	115.0	315	0.89
0700 033	2 x 6 RE/ 6	15.7	173.0	405	1.05
0700 034	2 x 10 RE/ 10	17.6	288.0	560	1.27
0700 035	2 x 16 RE/ 16	19.9	461.0	790	1.55
0700 036	2 x 25 RM/ 16	23.6	634.0	1120	2.29
0700 037	2 x 35 RM/ 16	25.8	826.0	1390	2.73
0700 038	2 x 50 RM/ 25	29.1	1200.0	1850	3.34
0700 039	2 x 70 RM/ 35	33.0	1680.0	2520	4.30
0700 040	2 x 95 RM/ 50	37.8	2304.0	3500	5.47
0700 041	2 x 120 RM/ 70	42.2	2976.0	4450	6.58
0700 010	3 x 1,5 RE/ 1,5	12.4	58.0	220	0.71
0700 042	3 x 2,5 RE/ 2,5	13.5	96.0	280	0.81
0700 043	3 x 4 RE/ 4	14.8	154.0	360	0.92
0700 044	3 x 6 RE/ 6	16.3	230.0	465	1.08
0700 045	3 x 10 RE/ 10	18.4	384.0	665	1.31
0700 046	3 x 16 RE/ 16	21.1	614.0	950	1.62
0700 047	3 x 25 RM/ 16	24.9	874.0	1350	2.32
0700 048	3 x 35 RM/ 16	27.2	1162.0	1700	2.73
0700 049	3 x 50 RM/ 25	30.9	1680.0	2290	3.40
0700 050	3 x 70 RM/ 35	35.3	2352.0	3200	4.41
0700 051	3 x 95 RM/ 50	40.0	3216.0	4350	5.38

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
0700 052	3 x 120 RM/ 70	44.7	4128.0	5550	6.45
0700 004	4 x 1,5 RE/ 1,5	13.2	72.0	255	0.80
0700 053	4 x 2,5 RE/ 2,5	14.3	120.0	325	0.90
0700 020	4 x 4 RE/ 4	16.0	192.0	430	1.06
0700 054	4 x 6 RE/ 6	17.4	288.0	555	1.21
0700 055	4 x 10 RE/ 10	19.7	480.0	795	1.45
0700 007	4 x 16 RE/ 16	22.7	768.0	1150	1.80
0700 056	4 x 25 RM/ 16	27.2	1114.0	1660	2.64
0700 057	4 x 35 RM/ 16	29.5	1498.0	2100	3.03
0700 006	4 x 50 RM/ 25	33.5	2160.0	2860	3.91
0700 058	4 x 70 RM/ 35	38.6	3024.0	3950	4.97
0700 059	4 x 95 RM/ 50	43.2	4128.0	5450	5.99
0700 060	4 x 120 RM/ 70	48.4	5280.0	6850	7.39
0700 061	7 x 1,5 RE/ 2,5	15.5	125.0	360	1.05
0700 062	7 x 2,5 RE/ 2,5	16.6	192.0	455	1.18
0700 063	12 x 1,5 RE/ 2,5	19.0	197.0	535	1.49
0700 064	12 x 2,5 RE/ 4	20.9	326.0	710	1.74
0700 065	24 x 1,5 RE/ 6	25.3	403.0	945	2.40
0700 066	24 x 2,5 RE/ 10	28.1	672.0	1290	2.80
0700 067	30 x 1,5 RE/ 6	26.8	490.0	1110	2.74
0700 068	30 x 2,5 RE/ 10	29.4	816.0	1510	3.12

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NHXCH FE180 PH90/E90 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXCH FE180 PH90/E90 0,6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## NHXCH FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	fire resistant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity *	E90 PH90 DIN 4102-12 PN-EN 50200 Annex E or PN-EN 50362
pH, approximate	6.8	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
conductivity, approximate	0.4 μS/mm	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1
Smoke density per	PN-EN 61034-2, IEC 61034-2	* Circuit integrity is dependent on installation method.	
light transmittance, minimum	70%		

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

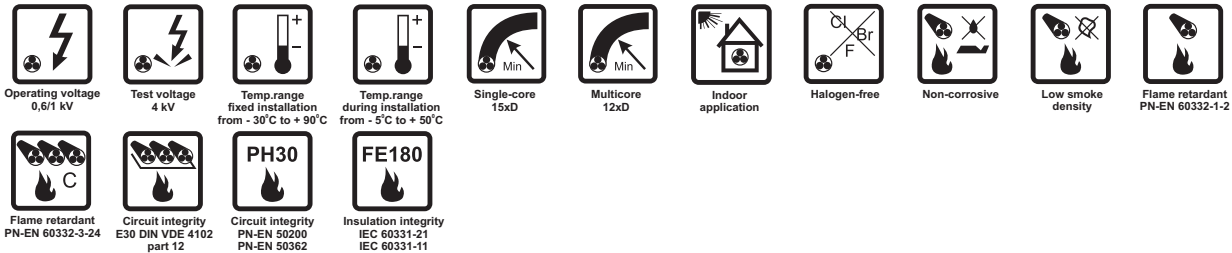
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
0700 069	2 x 1,5 RE/ 1,5	12.7	43.2	220	0.77
0700 077	2 x 2,5 RE/ 2,5	13.8	72.0	270	0.87
0700 070	2 x 4 RE/ 4	15.2	115.0	345	1.02
0700 072	2 x 6 RE/ 6	16.4	173.0	430	1.15
0700 078	2 x 10 RE/ 10	18.4	288.0	600	1.39
0700 079	2 x 16 RE/ 16	20.9	461.0	835	1.72
0700 080	2 x 25 RM/ 16	24.4	634.0	1160	2.44
0700 081	2 x 35 RM/ 16	26.6	826.0	1430	2.89
0700 082	2 x 50 RM/ 25	29.9	1200.0	1900	3.52
0700 083	2 x 70 RM/ 35	34.2	1680.0	2610	4.65
0700 084	2 x 95 RM/ 50	38.6	2304.0	3550	5.69
0700 085	2 x 120 RM/ 70	43.0	2976.0	4500	6.82
0700 096	2 x 240 RM/ 120	56.2	5772.0	8246	12.42
0700 014	3 x 1,5 RE/ 1,5	13.3	58.0	245	0.80
0700 016	3 x 2,5 RE/ 2,5	14.3	96.0	300	0.90
0700 071	3 x 4 RE/4	15.8	154.0	390	1.05
0700 025	3 x 6 RE/ 6	17.1	230.0	495	1.19
0700 073	3 x 10 RE/ 10	19.2	384.0	700	1.41
0700 074	3 x 16 RE/ 16	21.9	614.0	990	1.74
0700 018	3 x 25 RM/ 16	26.0	874.0	1410	2.52
0700 075	3 x 35 RM/ 16	28.0	1162.0	1750	2.88
0700 022	3 x 50 RM/ 25	31.8	1680.0	2350	3.57
0700 023	3 x 70 RM/ 35	36.3	2352.0	3250	4.68
0700 076	3 x 95 RM/ 50	40.2	3216.0	4450	5.55

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
0700 086	3 x 120 RM/ 70	45.5	4128.0	5600	6.67
0700 003	4 x 1,5 RE/ 1,5	14.2	72.0	285	0.90
0700 015	4 x 2,5 RE/ 2,5	15.5	120.0	360	1.04
0700 011	4 x 4 RE/ 4	16.9	192.0	465	1.17
0700 012	4 x 6 RE/ 6	18.3	288.0	590	1.32
0700 013	4 x 10 RE/ 10	20.8	480.0	845	1.62
0700 008	4 x 16 RE/ 16	23.2	768.0	1190	1.91
0700 017	4 x 25 RM/ 16	28.1	1114.0	1720	2.79
0700 009	4 x 35 RM/ 16	30.4	1498.0	2160	3.19
0700 005	4 x 50 RM/ 25	34.5	2160.0	2930	4.10
0700 024	4 x 70 RM/ 35	39.6	3024.0	4050	5.18
0700 086	4 x 95 RM/ 50	44.5	4128.0	5600	6.42
0700 087	4 x 120 RM/ 70	49.4	5280.0	6950	7.63
0700 031	5 x 6 RE/ 6	19.1	358.0	667	1.53
0700 029	7 x 1,5 RE/ 2,5	16.6	125.0	405	1.19
0700 088	7 x 2,5 RE/ 2,5	17.6	192.0	495	1.32
0700 028	10 x 1,5 RE/ 2,5	19.7	180.0	528	1.67
0700 089	12 x 1,5 RE/ 2,5	20.7	197.0	610	1.74
0700 090	12 x 2,5 RE/ 4	22.5	326.0	765	1.96
0700 091	24 x 1,5 RE/ 6	27.9	403.0	1070	2.81
0700 092	24 x 2,5 RE/ 10	30.4	672.0	1420	3.16
0700 093	30 x 1,5 RE/ 6	29.2	490.0	1250	3.13
0700 094	30 x 2,5 RE/ 10	32.5	816.0	1700	3.75

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## (N)HXH FE180 PH30/E30 0,6/1 kV, (N)HXH-J FE180 PH30/E30 0,6/1 kV FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

(N)HXH FE180 PH30/E30 0,6/1 kV and (N)HXH-J FE180 PH30/E30 0,6/1 kV fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- double special cross-linked silicone rubber insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in (N)HXH-J FE180 PH30/E30 0,6/1 kV cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## (N)HXH FE180 PH30/E30 0,6/1 kV, (N)HXH-J FE180 PH30/E30 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit		single core cables	15 x cable diameter
in work conditions	+ 90°C	multi core cables	12 x cable diameter
in short-circuit	+ 250°C	Cable combustibility	fire resistant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	
conductivity, approximate	0.4 μS/mm	E30	DIN 4102-12
Smoke density per	PN-EN 61034-2, IEC 61034-2	PH30	PN-EN 50200 or PN-EN 50362
light transmittance, minimum	70%	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\* Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
(N)HXH FE180 PH30/E30 0,6/1 kV					
1192 073	1 x 16 RE	8.8	154.0	210	0.32
1192 074	1 x 25 RM	10.8	240.0	315	0.44
1192 075	1 x 35 RM	11.8	336.0	410	0.49
1192 076	1 x 50 RM	13.4	480.0	550	0.61
1192 077	1 x 70 RM	15.2	672.0	760	0.73
1192 078	1 x 95 RM	17.3	912.0	1070	0.91
1192 079	1 x 120 RM	18.8	1152.0	1270	1.00
1192 081	2 x 1,5 RE	9.7	28.8	145	0.55
1192 080	2 x 2,5 RE	10.5	48.0	179	0.64
1192 082	2 x 4 RE	11.4	77.0	230	0.74
1192 083	2 x 6 RE	12.4	115.0	290	0.86
1192 084	2 x 10 RE	14.0	192.0	405	1.07
1192 085	2 x 16 RE	16.0	307.0	575	1.37
1192 086	2 x 25 RM	19.9	480.0	880	2.07
(N)HXH-J FE180 PH30/E30 0,6/1 kV					
1192 062	3 x 1,5 RE	10.2	43.0	167	0.59
1192 001	3 x 2,5 RE	11.0	72.0	210	0.67
1192 087	3 x 4 RE	12.0	115.0	275	0.78
1192 007	3 x 6 RE	13.1	173.0	350	0.90
1192 008	3 x 10 RE	14.8	288.0	500	1.11

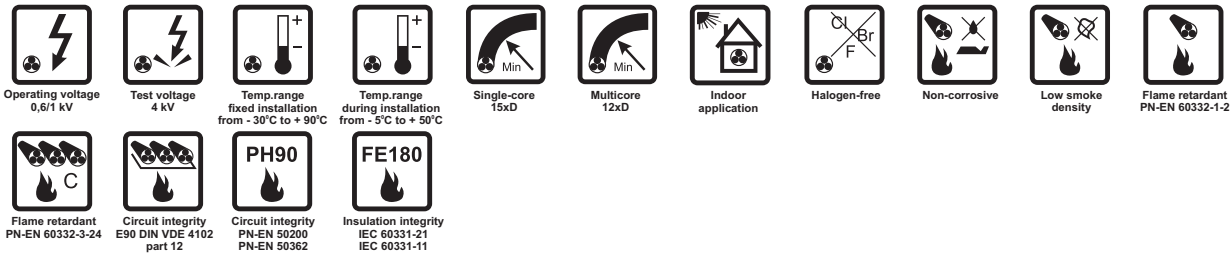
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1192 088	3 x 16 RM	17.6	461.0	770	1.48
1192 089	3 x 25 RM	21.4	720.0	1110	2.14
1192 004	4 x 1,5 RE	11.1	58.0	199	0.68
1192 090	4 x 2,5 RE	12.0	96.0	255	0.77
1192 091	4 x 4 RE	13.1	154.0	335	0.90
1192 092	4 x 6 RE	14.3	230.0	430	1.04
1192 093	4 x 10 RE	16.5	384.0	630	1.31
1192 096	4 x 16 RM	19.4	614.0	970	1.70
1192 094	4 x 25 RM	23.6	960.0	1400	2.45
1192 095	4 x 35 RM	26.3	1344.0	1840	2.95
1192 003	4 x 50 RM	30.1	1920.0	2480	3.79
1192 098	5 x 1,5 RE	12.1	72.0	240	0.79
1192 097	5 x 2,5 RE	13.1	120.0	305	0.90
1192 099	5 x 4 RE	14.3	192.0	400	1.05
1192 100	5 x 6 RE	15.9	288.0	530	1.24
1192 057	5 x 10 RE	18.0	480.0	765	1.53
1192 101	5 x 16 RM	21.5	768.0	1200	2.04
1192 105	5 x 25 RM	26.2	1200.0	1720	2.94
1192 102	5 x 35 RM	29.0	1680.0	2260	3.47
1192 103	5 x 50 RM	33.4	2400.0	3100	4.54
1192 104	7 x 1,5 RE	13.1	101.0	290	0.90

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**(N)HXH FE180 PH90/E90 0,6/1 kV, (N)HXH-J FE180 PH90/E90 0,6/1 kV**

**FIRE RESISTANT HALOGEN FREE POWER CABLES**



**APPLICATIONS**

**(N)HXH FE180 PH90/E90 0,6/1 kV** and **(N)HXH-J FE180 PH90/E90 0,6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpowarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

**CONSTRUCTION**

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- double special cross-linked silicone rubber insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in **(N)HXH-J FE180 PH90/E90 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

**(N)HXH FE180 PH90/E90 0,6/1 kV, (N)HXH-J FE180 PH90/E90 0,6/1 kV**

**CHARACTERISTICS**

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit in work conditions	+ 90°C	single core cables	15 x cable diameter
Conductor temperature limit in short-circuit	+ 250°C	multi core cables	12 x cable diameter
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Cable combustibility	fire resistant
pH, approximate	6.8	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
conductivity, approximate	0.4 μS/mm	Circuit integrity *	
Smoke density per	PN-EN 61034-2, IEC 61034-2	E90	DIN 4102-12
light transmittance, minimum	70%	PH90	PN-EN 50200 or PN-EN 50362
		Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

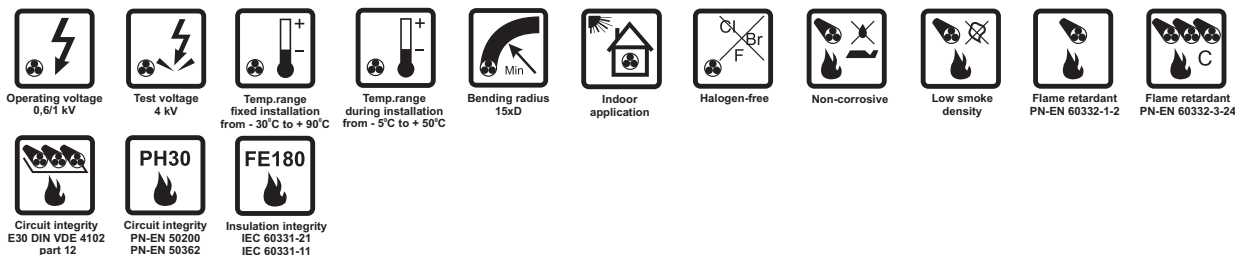
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
(N)HXH FE180 PH90/E90 0,6/1 kV					
1192 106	1 x 16 RE	8.8	154.0	210	0.32
1192 107	1 x 25 RM	10.8	240.0	315	0.44
1192 108	1 x 35 RM	11.8	336.0	410	0.49
1192 051	1 x 50 RM	13.4	480.0	550	0.61
1192 046	1 x 70 RM	15.2	672.0	755	0.73
1192 052	1 x 95 RM	17.3	912.0	1070	0.91
1192 109	1 x 120 RM	18.8	1152.0	1260	1.00
1192 047	2 x 1.5 RE	9.7	28.8	147	0.55
1192 048	2 x 2.5 RE	10.5	48.0	181	0.64
1192 056	2 x 4 RE	11.4	77.0	230	0.74
1192 072	2 x 6 RE	12.4	115.0	290	0.86
1192 070	2 x 10 RE	14.0	192.0	405	1.07
1192 110	2 x 16 RE	16.0	307.0	575	1.37
1192 068	2 x 25 RM	19.9	480.0	880	2.07
(N)HXH-J FE180 PH90/E90 0,6/1 kV					
1192 009	3 x 1.5 RE	10.2	43.2	168	0.59
1192 010	3 x 2.5 RE	11.0	72.0	210	0.67
1192 019	3 x 4 RE	12.0	115.0	275	0.78
1192 024	3 x 6 RE	13.1	173.0	350	0.90
1192 027	3 x 10 RE	14.8	288.0	500	1.11

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1192 041	3 x 16 RM	17.6	461.0	770	1.48
1192 029	3 x 25 RM	21.4	720.0	1110	2.14
1192 018	4 x 1.5 RE	11.1	58.0	200	0.68
1192 026	4 x 2.5 RE	12.0	96.0	255	0.77
1192 049	4 x 4 RE	13.1	154.0	335	0.90
1192 050	4 x 6 RE	14.3	230.0	435	1.04
1192 034	4 x 10 RE	16.5	384.0	630	1.31
1192 042	4 x 16 RM	19.4	614.0	970	1.70
1192 036	4 x 25 RM	23.6	960.0	1400	2.45
1192 037	4 x 35 RM	26.3	1344.0	1840	2.95
1192 006	4 x 50 RM	30.1	1920.0	2470	3.79
1192 043	5 x 1.5 RE	12.1	72.0	240	0.79
1192 012	5 x 2.5 RE	13.1	120.0	305	0.90
1192 025	5 x 4 RE	14.3	192.0	400	1.05
1192 013	5 x 6 RE	15.9	288.0	530	1.24
1192 011	5 x 10 RE	18.0	480.0	765	1.53
1192 111	5 x 16 RM	21.5	768.0	1190	2.04
1192 020	5 x 25 RM	26.2	1200.0	1720	2.94
1192 021	5 x 35 RM	29.0	1680.0	2250	3.47
1192 022	5 x 50 RM	33.4	2400.0	3050	4.54
1192 017	7 x 1.5 RE	13.1	101.0	280	0.90

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## (N)HXCH FE180 PH30/E30 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

(N)HXCH FE180 PH30/E30 0,6/1 kV fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- double special cross-linked silicone rubber insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## (N)HXCH FE180 PH30/E30 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	fire resistant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity *	
pH, approximate	6.8	E30	DIN 4102-12
conductivity, approximate	0.4 μS/mm	PH30	PN-EN 50200 or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

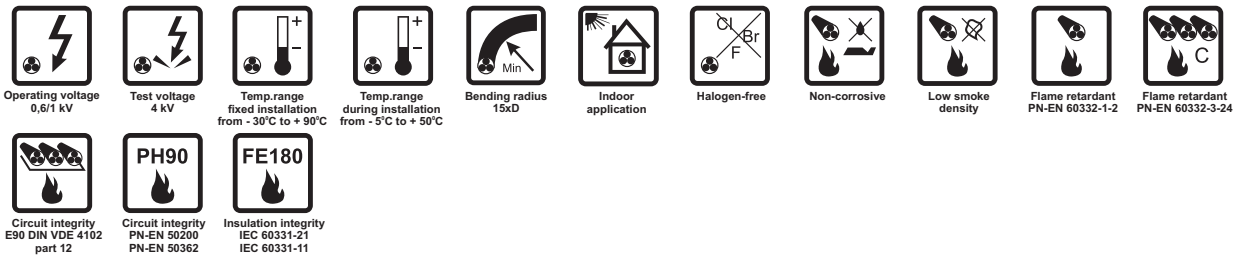
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire Load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1222 020	3 x 1,5 RE/1,5	12.9	58.0	235	0.80
1222 022	3 x 2,5 RE/2,5	14.0	96.0	295	0.90
1222 023	3 x 4 RE/4	15.3	154.0	380	1.06
1222 024	3 x 6 RE/6	16.7	230.0	485	1.21
1222 021	3 x 10 RE/10	18.8	384.0	685	1.45
1222 025	3 x 16 RE/16	21.5	614.0	980	1.79
1222 026	3 x 25 RM/16	25.2	874.0	1370	2.53
1222 027	3 x 35 RM/16	27.6	1162.0	1730	2.99
1222 028	3 x 50 RM/25	31.8	1680.0	2350	3.84
1222 002	4 x 1,5 RE/1,5	13.7	72.0	270	0.90
1222 029	4 x 2,5 RE/2,5	14.8	120.0	340	1.01

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire Load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1222 030	4 x 4 RE/4	16.4	192.0	445	1.19
1222 031	4 x 6 RE/6	17.8	288.0	575	1.35
1222 032	4 x 10 RE/10	20.1	480.0	820	1.65
1222 033	4 x 16 RE/16	22.7	768.0	1170	2.02
1222 034	4 x 25 RM/16	27.6	1114.0	1690	2.96
1222 035	4 x 35 RM/16	35.0	1528.0	2480	3.12
1222 001	4 x 50 RM/25	34.5	2160.0	2920	4.55
1222 036	7 x 1,5 RE/2,5	16.0	125.0	390	1.21
1222 037	7 x 2,5 RE/2,5	17.2	192.0	480	1.36
1222 038	12 x 1,5 RE/2,5	19.8	197.0	575	1.75
1222 039	12 x 2,5 RE/4	21.7	326.0	750	2.04

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## (N)HXCH FE180 PH90/E90 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



## APPLICATIONS

(N)HXCH FE180 PH90/E90 0.6/1 kV fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

## CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- double special cross-linked silicone rubber insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## (N)HXCH FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range during operation	from -30 to +90°C
Voltage test	4.0 kV rms	during installation	from -5 to +50°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	Minimum bending radius	15 x cable diameter
Inductance, approximate	0.7 mH/km	Cable combustibility	fire resistant
Conductor temperature limit in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
in short-circuit	+ 250°C		PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity *	
pH, approximate	6.8	E90	DIN 4102-12
conductivity, approximate	0.4 μS/mm	PH90	PN-EN 50200 or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire Load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1222 050	2 x 50 RM/ 25	29.0	1213.0	1866	3.20
1222 005	3 x 1,5 RE/ 1,5	13.3	58.0	245	0.80
1222 006	3 x 2,5 RE/ 2,5	14.3	96.0	300	0.90
1222 007	3 x 4 RE/ 4	15.8	154.0	390	1.05
1222 040	3 x 6 RE/ 6	17.1	230.0	495	1.19
1222 041	3 x 10 RE/ 10	19.2	384.0	700	1.41
1222 042	3 x 16 RE/ 16	22.6	614.0	1010	1.83
1222 043	3 x 25 RM/ 16	26.0	874.0	1410	2.52
1222 046	3 x 35 RM/ 16	28.0	1162.0	1750	2.88
1222 047	3 x 50 RM/ 25	31.8	1680.0	2350	3.57
1222 003	4 x 1,5 RE/ 1,5	14.2	72.0	285	0.90
1222 008	4 x 2,5 RE/ 2,5	15.5	120.0	360	1.04
1222 009	4 x 4 RE/ 4	16.9	192.0	460	1.18
1222 010	4 x 6 RE/ 6	18.3	288.0	585	1.33

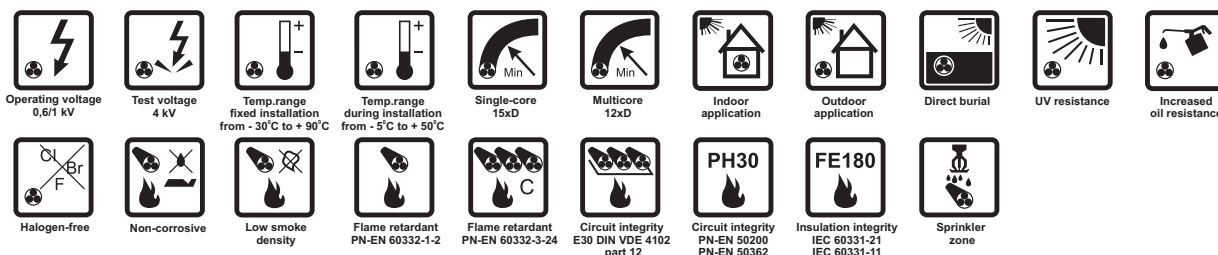
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire Load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1222 011	4 x 10 RE/ 10	20.8	480.0	845	1.63
1222 044	4 x 16 RE/ 16	23.9	768.0	1210	2.04
1222 013	4 x 25 RM/ 16	28.1	1114.0	1710	2.84
1222 014	4 x 35 RE/ 16	30.4	1498.0	2160	3.26
1222 004	4 x 50 RM/ 25	34.5	2160.0	2920	4.19
1222 016	4 x 95 RM/ 50	44.9	4140.0	5516	5.75
1222 048	7 x 1,5 RE/ 2,5	16.6	125.0	405	1.18
1222 045	7 x 2,5 RE/ 2,5	17.6	192.0	495	1.31
1222 049	12 x 1,5 RE/ 2,5	20.7	197.0	605	1.73
1222 015	12 x 2,5 RE/ 4	22.5	326.0	775	1.94
1222 017	14 x 2,5 RE/ 4	22.4	387.0	815	2.68

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## NHXHX FE180 PH30/E30 0,6/1 kV, NHXHX-J FE180 PH30/E30 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXHX FE180 PH30/E30 0,6/1 kV** and **NHXHX-J FE180 PH30/E30 0,6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations also for direct earth burial. Cables are UV radiation resistant.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in **NHXHX-J FE180 PH30/E30 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of cross-linked halogen free compound, (oxygen index bigger than 35%).

## NHXHX FE180 PH30/E30 0,6/1 kV, NHXHX-J FE180 PH30/E30 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit		single core cables	15 x cable diameter
in work conditions	+ 90°C	multi core cables	12 x cable diameter
in short-circuit	+ 250°C	Cable combustibility	fire resistant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	
conductivity, approximate	0.4 μS/mm	E30	DIN 4102-12
Smoke density per	PN-EN 61034-2, IEC 61034-2	PH30	PN-EN 50200 Annex E or PN-EN 50362
light transmittance, minimum	70%	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

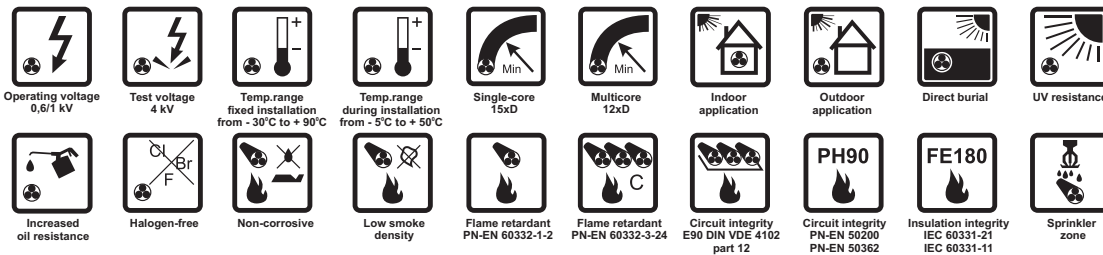
**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
NHXHX FE180 PH30/E30 0,6/1 kV					
1391 015	1 x 6 RE	8.1	58.0	118	0.28
1391 016	1 x 10 RE	8.9	96.0	163	0.32
1391 017	1 x 16 RE	9.8	154.0	225	0.36
1391 018	1 x 25 RM	11.8	240.0	335	0.40
1391 019	1 x 35 RM	12.8	336.0	435	0.40
1391 020	1 x 50 RM	14.2	480.0	560	0.47
1391 021	1 x 70 RM	16.0	672.0	770	0.49
1391 022	1 x 95 RM	17.7	912.0	1020	0.55
1391 023	1 x 120 RM	19.4	1152.0	1260	0.56
1391 024	1 x 150 RM	21.1	1440.0	1560	0.61
1391 025	1 x 185 RM	23.2	1776.0	1950	0.78
1391 026	1 x 240 RM	25.7	2304.0	2510	0.80
1391 027	1 x 300 RM	28.3	2880.0	3050	0.93
1391 028	1 x 400 RM	31.6	3840.0	4140	1.47
1391 029	2 x 1,5 RE	11.3	29.0	178	0.71
1391 030	2 x 2,5 RE	12.1	48.0	220	0.79
1391 031	2 x 4 RE	13.1	77.0	270	0.89
1391 032	2 x 6 RE	14.0	115.0	330	0.99
1391 033	2 x 10 RE	15.6	192.0	445	1.17
1391 034	2 x 16 RE	17.5	307.0	610	1.41
1391 035	2 x 25 RM	21.9	480.0	950	2.15
NHXHX-J FE180 PH30/E30 0,6/1 kV					
1391 036	3 x 1,5 RE	11.8	43.0	205	0.76
1391 037	3 x 2,5 RE	12.7	72.0	255	0.84
1391 038	3 x 4 RE	13.7	115.0	315	0.95
1391 039	3 x 6 RE	14.7	173.0	395	1.03
1391 040	3 x 10 RE	16.5	288.0	550	1.21
1391 041	3 x 16 RM	18.6	461.0	775	1.46
1391 042	3 x 25 RM	23.1	720.0	1200	2.22
1391 043	3 x 35 RM	25.3	1008.0	1540	2.51
1391 044	3 x 50 RM	28.9	1440.0	2050	2.88
1391 045	3 x 70 RM	33.4	2016.0	2840	3.89
1391 046	3 x 95 RM	37.4	2736.0	3800	5.03
1391 047	3 x 120 RM	41.3	3456.0	4650	5.64

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1391 048	4 x 1,5 RE	12.6	58.0	235	0.84
1391 049	4 x 2,5 RE	13.6	96.0	295	0.92
1391 050	4 x 4 RE	14.7	154.0	375	1.02
1391 051	4 x 6 RE	15.9	230.0	475	1.13
1391 052	4 x 10 RE	17.8	384.0	670	1.35
1391 053	4 x 16 RM	20.4	614.0	965	1.66
1391 054	4 x 25 RM	25.3	960.0	1480	2.46
1391 055	4 x 35 RM	28.3	1344.0	1960	2.91
1391 056	4 x 50 RM	32.3	1920.0	2600	3.22
1391 057	4 x 70 RM	36.8	2688.0	3600	4.31
1391 058	4 x 95 RM	41.3	3648.0	4750	5.21
1391 059	5 x 1,5 RE	13.5	72.0	270	0.94
1391 060	5 x 2,5 RE	14.7	120.0	340	1.02
1391 061	5 x 4 RE	15.9	192.0	435	1.12
1391 062	5 x 6 RE	17.2	288.0	555	1.24
1391 063	5 x 10 RE	19.6	480.0	800	1.51
1391 064	5 x 16 RM	22.2	768.0	1150	1.81
1391 065	5 x 25 RM	28.2	1200.0	1810	2.88
1391 066	5 x 35 RM	30.9	1680.0	2340	3.12
1391 067	5 x 50 RM	35.5	2400.0	3150	3.54
1391 068	5 x 70 RM	40.8	3360.0	4350	4.68
1391 069	5 x 95 RM	46.8	4560.0	5900	6.33
1391 070	7 x 1,5 RE	14.5	101.0	320	1.03
1391 071	7 x 2,5 RE	15.7	168.0	415	1.14
1391 072	7 x 4 RE	17.1	269.0	540	1.28
1391 073	12 x 1,5 RE	18.3	173.0	490	1.50
1391 074	12 x 2,5 RE	20.0	288.0	640	1.66
1391 075	19 x 1,5 RE	21.2	274.0	685	1.94
1391 076	19 x 2,5 RE	23.3	456.0	905	2.12
1391 077	24 x 1,5 RE	24.3	346.0	845	2.36
1391 078	24 x 2,5 RE	27.2	576.0	1150	2.71
1391 079	30 x 1,5 RE	26.0	432.0	1010	2.76
1391 080	30 x 2,5 RE	28.9	720.0	1370	3.07

Other crosssections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NHXHX FE180 PH90/E90 0,6/1 kV, NHXHX-J FE180 PH90/E90 0,6/1 kV FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

NHXHX FE180 PH90/E90 0,6/1 kV , NHXHX-J FE180 PH90/E90 0,6/1 kV fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations also for direct earth burial. Cables are UV radiation resistant.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in **NHXHX-J FE180 PH90/E90 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- orange cable sheath made of cross-linked halogen free compound, (oxygen index bigger than 35%).

## NHXHX FE180 PH90/E90 0,6/1 kV, NHXHX-J FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit		single core cables	15 x cable diameter
in work conditions	+ 90°C	multi core cables	12 x cable diameter
in short-circuit	+ 250°C	Cable combustibility	fire resistant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	
conductivity, approximate	0.4 μS/mm	E90	DIN 4102-12
Smoke density per	PN-EN 61034-2, IEC 61034-2	PH90	PN-EN 50200 Annex E or PN-EN 50362
light transmittance, minimum	70%	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\* Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

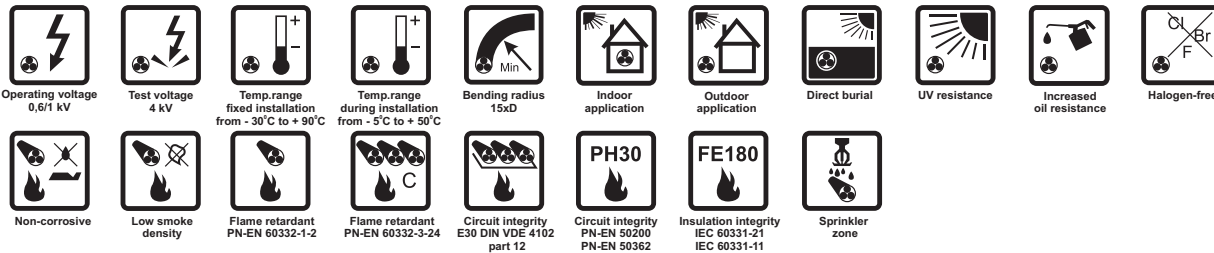
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
1391 089	1 x 6 RE	8.5	58.0	131	0.34
1391 081	1 x 10 RE	9.3	96.0	178	0.38
1391 090	1 x 16 RE	10.5	154.0	260	0.45
1391 091	1 x 25 RM	12.2	240.0	360	0.58
1391 082	1 x 35 RM	13.2	336.0	460	0.64
1391 083	1 x 50 RM	14.6	480.0	600	0.74
1391 084	1 x 70 RM	16.4	672.0	820	0.88
1391 008	1 x 95 RM	18.1	912.0	1130	0.99
1391 085	1 x 120 RM	19.8	1152.0	1340	1.13
1391 086	1 x 150 RM	21.7	1440.0	1660	1.33
1391 087	1 x 185 RM	23.6	1776.0	2050	1.54
1391 014	1 x 240 RM	26.3	2304.0	2640	1.78
1391 092	1 x 300 RM	28.7	2880.0	3250	2.07
1391 093	1 x 400 RM	32.0	3840.0	4350	2.50
1391 088	2 x 1,5 RE	11.3	28.8	189	0.73
1391 001	2 x 2,5 RE	12.1	48.0	230	0.82
1391 094	2 x 4 RE	13.0	77.0	280	0.93
1391 095	2 x 6 RE	14.0	115.0	345	1.06
1391 096	2 x 10 RE	15.6	192.0	470	1.29
1391 097	2 x 16 RE	18.0	307.0	685	1.67
1391 098	2 x 25 RM	21.4	480.0	965	2.33
1391 002	3 x 1,5 RE	11.9	43.2	215	0.76
1391 005	3 x 2,5 RE	12.7	72.0	260	0.85
1391 099	3 x 4 RE	13.7	115.0	330	0.97
1391 007	3 x 6 RE	14.7	173.0	410	1.09
1391 100	3 x 10 RE	16.5	288.0	570	1.31
1391 107	3 x 16 RM	19.1	461.0	845	1.68
1391 101	3 x 25 RM	22.7	720.0	1200	2.33
1391 102	3 x 35 RM	24.9	1008.0	1550	2.71
1391 108	3 x 50 RM	27.8	1440.0	2030	3.32
1391 109	3 x 70 RM	32.2	2016.0	2830	4.35
1391 110	3 x 95 RM	36.1	2736.0	3900	5.32
1391 111	3 x 120 RM	39.8	3456.0	4650	6.39
1391 112	4 x 1,5 RE	12.8	58.0	250	0.86
1391 113	4 x 2,5 RE	13.7	96.0	310	0.96

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
1391 114	4 x 4 RE	14.8	154.0	395	1.09
1391 115	4 x 6 RE	16.0	230.0	500	1.24
1391 116	4 x 10 RE	17.9	384.0	705	1.49
1391 117	4 x 16 RM	20.9	614.0	1060	1.89
1391 104	4 x 25 RM	25.0	960.0	1500	2.64
1391 105	4 x 35 RM	27.4	1344.0	1950	3.07
1391 118	4 x 50 RM	30.9	1920.0	2580	3.83
1391 119	4 x 70 RM	35.7	2688.0	3600	5.01
1391 106	4 x 95 RM	40.1	3648.0	5000	6.09
1391 003	5 x 1,5 RE	13.8	72.0	295	0.98
1391 013	5 x 2,5 RE	14.8	120.0	365	1.10
1391 012	5 x 4 RE	16.1	192.0	470	1.25
1391 011	5 x 6 RE	17.4	288.0	600	1.42
1391 010	5 x 10 RE	19.6	480.0	850	1.71
1391 120	5 x 16 RM	22.8	768.0	1290	2.19
1391 009	5 x 25 RM	27.4	1200.0	1830	3.08
1391 006	5 x 35 RM	30.3	1680.0	2390	3.65
1391 103	5 x 50 RM	34.4	2400.0	3200	4.64
1391 121	5 x 70 RM	39.5	3360.0	4450	5.95
1391 122	5 x 95 RM	44.7	4560.0	6150	7.33
1391 004	7 x 1,5 RE	14.9	101.0	350	1.09
1391 123	7 x 2,5 RE	16.0	168.0	445	1.22
1391 124	7 x 4 RE	17.4	269.0	580	1.39
1391 125	12 x 1,5 RE	19.0	173.0	545	1.60
1391 126	12 x 2,5 RE	20.5	288.0	700	1.80
1391 127	14 x 1,5 RE	19.9	202.0	605	1.74
1391 128	19 x 1,5 RE	22.0	274.0	760	2.07
1391 129	19 x 2,5 RE	23.9	456.0	990	2.33
1391 130	24 x 1,5 RE	25.5	346.0	955	2.58
1391 131	24 x 2,5 RE	27.8	576.0	1250	2.91
1391 132	30 x 1,5 RE	27.0	432.0	1120	2.90
1391 133	30 x 2,5 RE	29.6	720.0	1500	3.34

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NHXCHX FE180 PH30/E30 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

NHXCHX FE180 PH30/E30 0,6/1 kV fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations also for direct earth burial. Cables are UV radiation resistant.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of cross-linked halogen free compound, (oxygen index bigger than 35%).

## NHXCHX FE180 PH30/E30 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	fire resistant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity *	
pH, approximate	6.8	E30	DIN 4102-12
conductivity, approximate	0.4 μS/mm	PH30	PN-EN 50200 Annex E or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

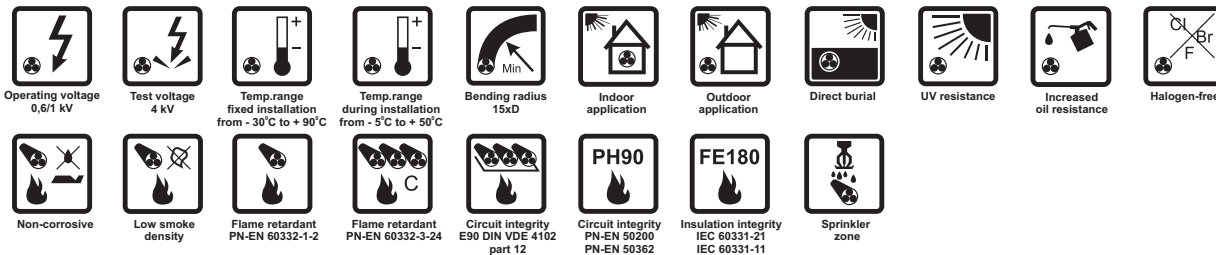
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1712 005	2 x 1,5 RE/ 1,5	13.1	52.0	235	0.89
1712 006	2 x 2,5 RE/ 2,5	14.1	80.0	285	0.99
1712 007	2 x 4 RE/ 4	15.4	123.0	355	1.10
1712 008	2 x 6 RE/ 6	16.3	182.0	425	1.14
1712 009	2 x 10 RE/ 10	18.6	312.0	595	1.37
1712 010	2 x 16 RE/ 16	20.5	489.0	795	1.45
1712 011	2 x 25 RM/ 16	24.5	661.0	1140	2.26
1712 012	2 x 35 RM/ 16	26.5	853.0	1410	2.63
1712 013	2 x 50 RM/ 25	29.5	1243.0	1820	2.73
1712 014	2 x 70 RM/ 35	33.8	1737.0	2600	4.21
1712 015	2 x 95 RM/ 50	38.8	2386.0	3750	5.48
1712 016	2 x 120 RM/ 70	42.4	3090.0	4600	7.34
1712 017	3 x 1,5 RE/ 1,5	13.6	66.0	265	0.97
1712 018	3 x 2,5 RE/ 2,5	14.7	104.0	320	1.04
1712 019	3 x 4 RE/ 4	16.0	161.0	410	1.18
1712 020	3 x 6 RE/ 6	17.0	240.0	495	1.20
1712 021	3 x 10 RE/ 10	19.4	408.0	710	1.46
1712 022	3 x 16 RE/ 16	21.5	643.0	965	1.53
1712 023	3 x 25 RM/ 16	25.8	902.0	1390	2.31
1712 024	3 x 35 RM/ 16	27.8	1190.0	1750	2.65
1712 025	3 x 50 RM/ 25	31.4	1723.0	2300	2.73
1712 026	3 x 70 RM/ 35	36.4	2410.0	3250	3.96
1712 027	3 x 95 RM/ 50	40.4	3296.0	4250	4.48

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1712 028	3 x 120 RM/ 70	45.1	4236.0	5350	5.44
1712 029	4 x 1,5 RE/ 1,5	14.4	81.0	290	1.06
1712 030	4 x 2,5 RE/ 2,5	15.6	128.0	370	1.16
1712 031	4 x 4 RE/ 4	17.0	200.0	475	1.30
1712 032	4 x 6 RE/ 6	18.2	297.0	580	1.33
1712 033	4 x 10 RE/ 10	20.8	504.0	845	1.64
1712 034	4 x 16 RE/ 16	23.1	796.0	1160	1.72
1712 001	4 x 25 RM/ 16	27.8	1142.0	1690	2.59
1712 002	4 x 35 RM/ 16	30.4	1526.0	2160	3.00
1712 035	4 x 50 RM/ 25	34.7	2203.0	2880	3.20
1712 003	4 x 70 RM/ 35	39.8	3082.0	4000	4.57
1712 036	4 x 95 RM/ 50	44.3	4208.0	5260	4.90
1712 004	4 x 120 RM/ 70	50.0	5388.0	6800	6.85
1712 037	7 x 1,5 RE/ 2,5	16.3	133.0	395	1.31
1712 038	7 x 2,5 RE/ 2,5	17.7	200.0	500	1.44
1712 039	12 x 1,5 RE/ 2,5	20.4	205.0	600	1.84
1712 040	12 x 2,5 RE/ 4	21.8	334.0	740	2.03
1712 041	24 x 1,5 RE/ 6	26.3	413.0	990	2.77
1712 042	24 x 2,5 RE/ 10	29.0	696.0	1300	3.15
1712 043	30 x 1,5 RE/ 6	27.2	499.0	1110	3.08
1712 044	30 x 2,5 RE/ 10	30.4	840.0	1510	3.46

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## NHXCHX FE180 PH90/E90 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXCHX FE180 PH90/E90 0.6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations also for direct earth burial. Cables are UV radiation resistant.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- concentric conductor formed by bare copper wires with counter helix of copper tape over the inner sheath,
- concentric conductor wrapped in polyester tape,
- orange cable sheath made of cross-linked halogen free compound, (oxygen index bigger than 35%).

## NHXCHX FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	fire resistant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Circuit integrity *	
pH, approximate	6.8	E90	DIN 4102-12
conductivity, approximate	0.4 μS/mm	PH90	PN-EN 50200 Annex E or PN-EN 50362
Smoke density per	PN-EN 61034-2, IEC 61034-2	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
light transmittance, minimum	70%	Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\* Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

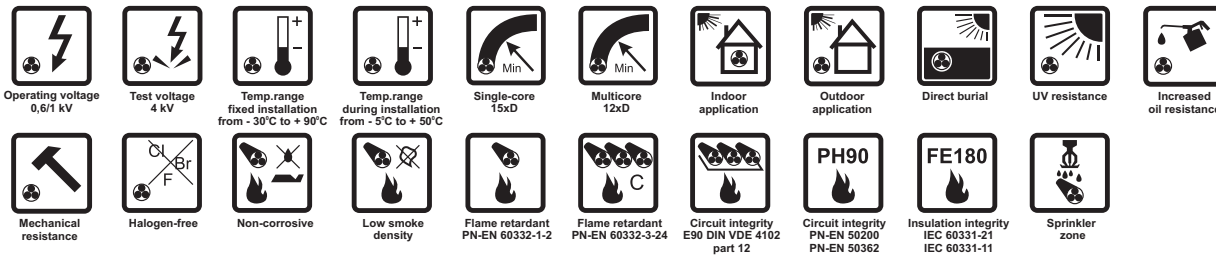
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1409 001	2 x 1,5 RE/ 1,5	13.7	52.0	255	1.01
1409 008	2 x 2,5 RE/ 2,5	14.7	80.0	300	1.08
1409 019	2 x 4 RE/ 4	16.0	123.0	375	1.22
1409 020	2 x 6 RE/ 6	17.0	182.0	440	1.26
1409 021	2 x 10 RE/ 10	19.2	312.0	620	1.54
1409 022	2 x 16 RE/ 16	21.2	489.0	820	1.62
1409 023	2 x 25 RM/ 16	25.0	661.0	1160	2.45
1409 024	2 x 35 RM/ 16	27.0	853.0	1430	2.82
1409 025	2 x 50 RM/ 25	30.0	1243.0	1840	2.92
1409 026	2 x 70 RM/ 35	35.1	1737.0	2730	4.82
1409 027	2 x 95 RM/ 50	39.5	2386.0	3800	5.95
1409 028	2 x 120 RM/ 70	43.1	3090.0	4700	7.58
1409 029	3 x 1,5 RE/ 1,5	14.3	66.0	280	1.09
1409 004	3 x 2,5 RE/ 2,5	15.3	104.0	340	1.16
1409 010	3 x 4 RE/ 4	16.7	161.0	425	1.29
1409 030	3 x 6 RE/ 6	17.8	240.0	515	1.34
1409 012	3 x 10 RE/ 10	20.1	408.0	730	1.63
1409 031	3 x 16 RE/ 16	22.2	643.0	985	1.74
1409 032	3 x 25 RM/ 16	26.4	902.0	1420	2.55
1409 014	3 x 35 RM/ 16	28.7	1190.0	1790	2.78
1409 016	3 x 50 RM/ 25	31.9	1723.0	2310	2.92
1409 033	3 x 70 RM/ 35	37.3	2410.0	3300	4.43
1409 034	3 x 95 RM/ 50	39.5	3296.0	4550	4.72

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1409 035	3 x 120 RM/ 70	45.8	4236.0	5450	5.68
1409 006	4 x 1,5 RE/ 1,5	15.2	81.0	320	1.21
1409 002	4 x 2,5 RE/ 2,5	16.4	128.0	390	1.28
1409 036	4 x 4 RE/ 4	17.8	200.0	495	1.47
1409 011	4 x 6 RE/ 6	19.0	297.0	625	1.55
1409 037	4 x 10 RE/ 10	21.6	504.0	890	1.86
1409 038	4 x 16 RE/ 16	23.9	796.0	1190	2.00
1409 013	4 x 25 RM/ 16	28.8	1142.0	1740	2.97
1409 015	4 x 35 RM/ 16	31.4	1526.0	2220	3.43
1409 039	4 x 50 RM/ 25	35.3	2203.0	2920	3.53
1409 017	4 x 70 RM/ 35	40.8	3082.0	4100	5.27
1409 040	4 x 95 RM/ 50	45.9	4208.0	5650	5.61
1409 018	4 x 120 RM/ 70	50.8	5388.0	6900	7.32
1409 041	7 x 1,5 RE/ 2,5	17.3	133.0	420	1.50
1409 005	7 x 2,5 RE/ 2,5	18.6	200.0	520	1.60
1409 007	12 x 1,5 RE/ 2,5	21.4	205.0	640	2.13
1409 042	12 x 2,5 RE/ 4	23.4	334.0	800	2.29
1409 043	24 x 1,5 RE/ 6	28.3	413.0	1080	3.34
1409 009	24 x 2,5 RE/ 10	30.9	696.0	1410	3.62
1409 044	30 x 1,5 RE/ 6	29.7	499.0	1250	3.69
1409 045	30 x 2,5 RE/ 10	32.7	840.0	1650	4.07

Other dcross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



## NHXHRHX FE180 PH90/E90 0,6/1 kV, NHXHRHX-J FE180 PH90/E90 0,6/1 kV STEEL WIRE ARMoured FIRE RESISTANT HALOGEN FREE POWER CABLES



### APPLICATIONS

**NHXHRHX FE180 PH90/E90 0,6/1 kV** and **NHXHRHX-J FE180 PH90/E90 0,6/1 kV** fire resistant and halogen free power cables, are intended for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are resistant to water in accordance with EN 50200 Annex E and can be used in fire protected rooms with fixed pressure water spraying fire extinguishing systems (**sprinkler zones**).

Galvanized steel wire armour provides carrying an axial load of the cable during installation and exploitation. It also offers enhanced protection against mechanical damages and rodent attack, as well as shielding properties.

The cables are oil-resistant and designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cables are suitable for fixed indoor and outdoor installations also for direct earth burial. Cables are UV radiation resistant.

### CONSTRUCTION

- bare annealed copper conductors meeting requirements of PN-EN 60228 standard:
  - RE** - class 1 single wire round conductor,
  - RM** - class 2 multiwire round conductor,
- mica tape and halogen free cross-linked compound insulation – colours:
  - up to 5 wires in accordance with PN-HD 308,
  - above 5 wires black and white conductor number printed on it,
  - green-yellow protective conductor in the outer layer in **NHXHRHX-J FE180 PH90/E90 0,6/1 kV** cable,
- insulated conductors laid-up into a cable core,
- inner covering made of halogen free compound,
- cable sheath made of halogen free compound,
- galvanized steel wire armour,
- orange cable covering made of cross-linked halogen free compound, (oxygen index bigger than 35%).

## NHXHRHX FE180 PH90/E90 0,6/1 kV, NHXHRHX-J FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +90°C
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	during installation	from -5 to +50°C
Inductance, approximate	0.7 mH/km	Minimum bending radius:	
Conductor temperature limit		single core cables	15 x cable diameter
in work conditions	+ 90°C	multi core cables	12 x cable diameter
in short-circuit	+ 250°C	Cable combustibility	fire resistant
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
pH, approximate	6.8	Circuit integrity *	
conductivity, approximate	0.4 μS/mm	E90	DIN 4102-12
Smoke density per	PN-EN 61034-2, IEC 61034-2	PH90	PN-EN 50200 Annex E or PN-EN 50362
light transmittance, minimum	70%	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
		Reference standards	AT-0603-0496/2016, WT-TK-44 DIN VDE 0266, PN-HD 604 S1

\*Circuit integrity is dependent on installation method.

**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
NHXHRHX FE180 PH90/E90 0,6/1 kV				
1611 006	2 x 1,5 RE	14.5	28.8	157
1611 001	2 x 2,5 RE	15.3	48.0	192
1611 003	2 x 4 RE	16.4	77.0	245
1611 004	2 x 6 RE	17.4	115.0	305
1611 005	2 x 10 RE	19.2	192.0	420
1611 007	2 x 16 RM	22.3	307.0	595
1611 008	2 x 25 RM	26.6	480.0	915
NHXHRHX-J FE180 PH90/E90 0,6/1 kV				
1611 012	3 x 1,5 RE	15.1	43.2	177
1611 009	3 x 2,5 RE	16.8	72.0	225
1611 013	3 x 4 RE	18.3	115.0	325
1611 014	3 x 6 RE	19.5	173.0	405
1611 015	3 x 10 RE	22.4	288.0	565
1611 016	3 x 16 RM	24.3	460.8	785
1611 017	3 x 25 RM	28.7	720.0	1180
1611 018	3 x 35 RM	31.0	1008.0	1530
1611 019	3 x 50 RM	34.6	1440.0	2000
1611 020	3 x 70 RM	39.0	2016.0	2780
1611 021	3 x 95 RM	43.7	2736.0	3850
1611 022	4 x 1,5 RE	17.4	58.0	250

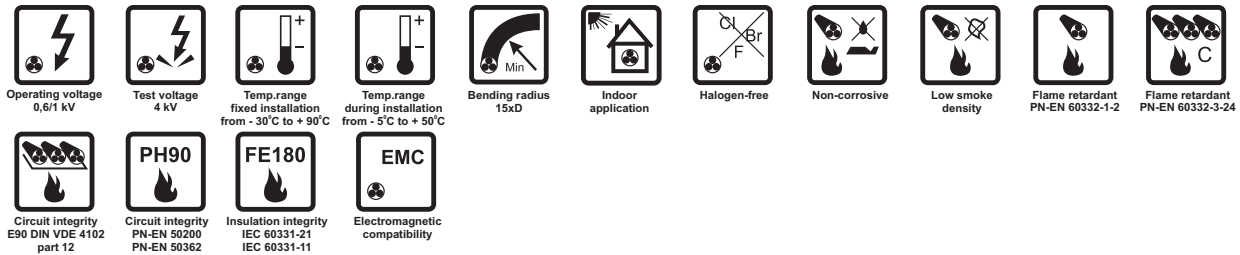
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1611 023	4 x 2,5 RE	18.3	96.0	305
1611 010	4 x 4 RE	19.6	154.0	390
1611 024	4 x 6 RE	21.7	230.4	495
1611 025	4 x 10 RE	23.8	384.0	695
1611 026	4 x 16 RM	26.2	614.4	975
1611 027	4 x 25 RM	31.0	960.0	1480
1611 028	4 x 35 RM	34.2	1344.0	1920
1611 029	4 x 50 RM	37.7	1920.0	2540
1611 030	4 x 70 RM	43.3	2688.0	3550
1611 031	4 x 95 RM	48.7	3648.0	4900
1611 032	5 x 1,5 RE	18.4	72.0	290
1611 033	5 x 2,5 RE	19.6	120.0	360
1611 011	5 x 4 RE	22.0	192.0	465
1611 034	5 x 6 RE	23.3	288.0	590
1611 035	5 x 10 RE	25.7	480.0	835
1611 036	5 x 16 RM	28.1	768.0	1190
1611 037	5 x 25 RM	34.1	1200.0	1800
1611 038	5 x 35 RM	37.2	1680.0	2360
1611 039	5 x 50 RM	41.2	2400.0	3150
1611 040	5 x 70 RM	47.1	3360.0	4400
1611 041	5 x 95 RM	53.3	4560.0	6050

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## (N)HXCH-J SERVO FE180 PH90/E90 0,6/1 kV

### FIRE RESISTANT HALOGEN FREE MOTOR SUPPLY CABLES



## APPLICATIONS

(N)HXCH-J SERVO FE180 PH90/E90 0,6/1 kV fire resistant halogen free cables, are intended for connecting converters or inverters with motors in fire protection equipment which is to operate in fire conditions.

The cables shall be applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting (e.g. water pumps in fire extinguishing systems, smoke removing fans, emergency lighting and elevators).

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

Cables are protected by a specially designed and highly effective collective shield against emission of electromagnetic interferences to environment and against influence of external interferences.

The cables are suitable for fixed indoor and outdoor installations. UV radiation protection is required for outdoor installations. Laying cables in water or direct earth burial are only permitted if additional protection is used.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- double special cross-linked silicone rubber insulation - colours of insulation: black, brown, grey, green-yellow,
- insulated conductors and fillers laid-up in a cable core,
- cable core wrapped in polyester tape,
- cable core wrapped in mica tape,
- double screen incorporating aluminium-polyester tape under a tinned copper wire braid shield of coverage bigger than 80%,
- orange cable sheath made of halogen free compound type HM4 according to HD 604 S1 and VDE 0276-604, (oxygen index bigger than 35%).

## (N)HXCH-J SERVO FE180 PH90/E90 0,6/1 kV

### CHARACTERISTICS

Operating voltage	0.6/1 kV	Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
Voltage test	4 kV rms	pH appr.	6.8
Insulation resistance at 90°C, minimum	10 <sup>11</sup> Ω·cm	conductivity appr.	0.4 μS/mm
Inductance, approximate	0.7 mH/km	Smoke density minimum light transmittance	PN-EN 61034-2, IEC 61034-2 70 %
Shielding efficiency, approximate	75 dB	Cable combustibility	fire resistant
Conductor temperature limit in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 50266-2-4, IEC 60332-3-24 (cat. C)
in short-circuit	+ 250°C	Circuit integrity:	
Operating temperature range		E90	DIN 4102-12
during operation	od - 30 do + 90°C	PH90	PN-EN 50200 or PN-EN 50362
during installation	od - 5 do + 50°C	Insulation integrity FE180	IEC 60331-21, IEC 60331-11
Minimum bending radius	15 x cable diameter	Reference standards	AT-0603-0495/2016 WT-TK-44, PN-HD 604 S1

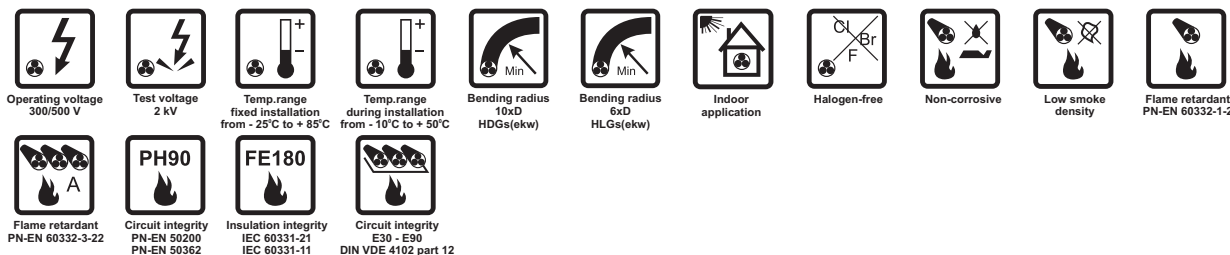
**Cable installation - Only certified cable fixing systems shall be used. Systems certified according to DIN 4102 part 12 are recommended.**

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Fire Load (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km	kWh/m
1669 001	4x1,5	11.6	86.1	204	11.6
1669 002	4x50	36.8	2173	2772	36.8

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

**HDGs(żo) FE180 PH90/E30-E90, HDGsekw(żo) FE180 PH90/E30-E90**  
**HLGs(żo) FE180 PH90/E30-E90, HLGsekw(żo) FE180 PH90/E30-E90**

**FIRE RESISTANT HALOGEN FREE POWER CABLES**



**APPLICATIONS**

**HDGs(żo) FE180 PH90/E30-E90 300/500 V, HLGs(żo) FE180 PH90/E30-E90 300/500 V** fire resistant cables and **HDGsekw(żo) FE180 PH90/E30-E90 300/500 V, HLGsekw(żo) FE180 PH90/E30-E90 300/500 V** screened fire resistant cables, are intended for installation in alarm, signalling, sound warning and similar systems, also for power supply to fire protection equipment in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

Halogen free cables are applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required.

**Functions of the cables are maintained** – power is supplied to equipment which must operate in fire conditions and during fire fighting. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are certified by Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej - PIB) at Józefów.

Shielded cables (**ekw**) are protected by an overall electrostatic shield against external electric field interferences.

**CONSTRUCTION**

- bare annealed copper, single wire (**D**) or stranded multi wire (**L**), round conductors meeting requirements of class 1, 2 or 5 per PN-EN 60228,
- special silicone rubber insulation,
- identification colour code according to PN-HD 308 S2,

Number of conductors	Colour of insulation	
	with protective conductor (żo)	without protective conductor
2	-	blue and brown
3	green-yellow, blue and brown	brown, black and grey
4	green-yellow, brown, black and grey	blue, brown, black and grey
5	green-yellow, blue, brown, black and grey	black, blue, brown, black and grey
> 5	black and white conductor number printed on it	

- insulated conductors laid-up in layers,
- cable core wrapped in polyester tape - in **HDGsekw** and **HLGsekw**,
- overall electrostatic shield incorporating aluminium-polyester tape and annealed tinned copper drain wire - in **HDGsekw** and **HLGsekw**,
- red cable sheath of halogen free compound.

**HDGs(żo) FE180 PH90/E30-E90,  
HLGs(żo) FE180 PH90/E30-E90,**

**HDGsekw(żo) FE180 PH90/E30-E90  
HLGsekw(żo) FE180 PH90/E30-E90**

## CHARACTERISTICS

Conductor diameter	mm	1,0	1,1	1,4	1,8	2,3	2,8
Conductor cross-section	mm <sup>2</sup>	0,75	1	1,5	2,5	4	6
DC conductor resistance at 20°C, maximum - HLGs	Ω/km	26.0	19.5	13.3	7.98	4.95	3.30
DC conductor resistance at 20°C, maximum - HDGs	Ω/km	24.5	18.1	12.1	7.41	4.61	3.08
Capacitance between conductors at 1 kHz, – maximum – average	nF/km	120	120	120	120	120	120
		70	70	80	80	100	100

Operating voltage U <sub>0</sub> /U	300/500 V	Corrosivity of emitted gases	very low, halogen free PN-EN 60754-1, PN-EN 60754-2
Voltage test	2 kVrms		IEC 60754-2
Insulation resistance at 20°C, minimum	500 MΩ·km	pH, aprox. conductivity, aprox.	6,8 0,4 μS/cm
Inductance, approximate	0,7 mH/km	Smoke density	low smoke density PN-EN 61034-2, IEC 61034-2
Conductor temperature limit in work conditions in short-circuit (max. 5 s)	+ 85°C + 250°C	light transmittance, minimum	70 %
Operating temperature range during operation during installation	from - 25 to + 85°C from -10 to + 50°C	Cable combustibility	flame retardant
Minimum bending radius HDGs(ekw) cables HLGs(ekw) cables	10 x cable diameter 6 x cable diameter	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1=2, PN-EN 60332-3-22, IEC 60332-3-22 (cat. A)
		Circuit integrity*	DIN 4102-12 PN-EN 50200 or EN 50362
		Insulation integrity FE180	IEC 60331-21; IEC 60331-11
		Reference standards	AT-603-0248/2009/2014, WT-TK-46
		Circuit integrity is dependent on installation method.	

Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
HDGs				
1195 031	2 x 0,75	6.4	14.4	50
1195 005	2 x 1	6.6	19.2	55
1195 006	2 x 1,5	7.5	28.8	75
1195 007	2 x 2,5	8.9	48.0	105
1195 014	2 x 4	9.8	77.0	140
1195 023	2 x 6	11.8	115	196
HDGsżo				
1195 032	3 x 0,75	6.5	21.6	52
1195 003	3 x 1	6.8	28.8	66
1195 001	3 x 1,5	8.2	43.2	95
1195 002	3 x 2,5	9.4	72.0	137
1195 004	3 x 4	10.6	115.0	191
1195 015	3 x 6	12.5	173.0	275
1195 033	4 x 0,75	7.3	28.8	67
1195 010	4 x 1	7.6	38.4	88
1195 008	4 x 1,5	8.9	58.0	122
1195 017	4 x 2,5	10.4	96.0	180
1195 021	4 x 4	11.6	154.0	235
1195 025	4 x 6	13.6	230.0	340
1195 034	5 x 0,75	8.1	36.0	86
1195 020	5 x 1	8.4	48.0	121
1195 012	5 x 1,5	9.7	72.0	151
1195 011	5 x 2,5	11.4	120.0	220
1195 013	5 x 4	12.7	192.0	305

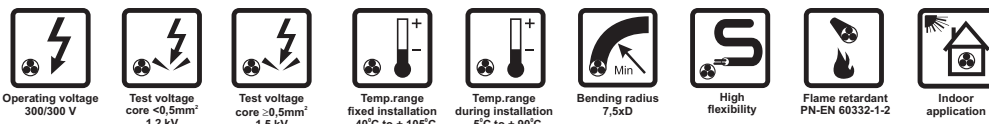
Product No.	Number of conductors x conductor cross-section mm <sup>2</sup>	Cable outer diameter (appr.) mm	Copper index kg/km	Cable weight (appr.) kg/km
1195 022	5 x 6	14.9	288.0	420
1195 016	7 x 1,5	10.7	101.0	190
1195 019	7 x 2,5	12.4	168.0	285
HLGs				
1197 001	2 x 1	6.8	19.2	55
1197 002	2 x 1,5	8.0	28.8	75
1197 006	2 x 2,5	9.4	48.0	110
HLGsżo				
1197 003	3 x 1	7.2	28.8	72
1197 004	3 x 1,5	8.5	43.2	99
1197 005	3 x 2,5	9.9	72.0	149
1197 007	4 x 1	8.0	38.4	94
1197 008	4 x 1,5	9.4	58.0	130
HDGsekw				
1196 008	2 x 1	6.6	26.4	59
1196 007	2 x 1,5	7.7	36.0	77
1196 003	2 x 2,5	9.1	55.0	114
HDGsekwżo				
1196 001	3 x 1,5	8.1	50.0	101
1196 010	3 x 2,5	9.6	79.0	149
HLGsekw				
1198 001	2 x 1	7.0	19.2	73
1198 006	2 x 1,5	8.0	36.0	81
1198 008	2 x 4	10.5	86.0	148

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## TECHNOTRONIK LiYwYw 105°C

### CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



## APPLICATIONS

**TECHNOTRONIK LiYwYw 105°C** are heat resistant control cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all for industrial electronic applications.

The cable can be applied at higher operating temperatures up to 105°C due to insulation and sheath made of special heat resistant PVC.

The cables are designed to offer high flexibility and small outer diameter combined with tensile strength.

The cables can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guide*) is not exceeded.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- heat resistant PVC insulation, identification colour code in accordance with DIN VDE 47100,
- insulated conductors laid-up into a cable core,
- special heat resistant PVC cable sheath, grey (RAL 7001), other colours also available.

## TECHNOTRONIK LiYwYw 105°C

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0.14	0.22	0.35	0.5	0.75	1.0	1.5
Operating voltage, peak value	V	350	350	350	500	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500	1500
DC conductor resistance at 20°C, maximum	Ω/km	144.0	90.0	57.0	39.0	26.0	19.5	13.3
Capacitance between conductors at 1 kHz, appr.	nF/km	90	100	110	110	110	120	120

Operating voltage U <sub>o</sub> /U	300/300 V	Operating temperature range for fixed installation	from - 40 to + 105°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 90°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	7.5 x cable diameter
Impedance, approximate	80 Ω	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0812, DIN VDE 0814

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0762 004	2 x 0,14	3.0	2.69	13
0762 014	3 x 0,14	3.1	4.0	15
0762 017	4 x 0,14	3.4	5.4	17
0762 024	5 x 0,14	3.7	6.7	21
0762 011	2 x 0,22	3.3	4.3	17
0762 015	3 x 0,22	3.5	6.4	20
0762 018	4 x 0,22	3.8	8.5	24
0762 025	5 x 0,22	4.1	10.6	29
0762 012	2 x 0,35	3.5	6.5	20
0762 026	3 x 0,35	3.7	9.8	24
0762 019	4 x 0,35	4.0	13.1	29
0762 023	5 x 0,35	4.4	16.3	36
0762 006	2 x 0,5	4.0	9.6	25
0762 008	3 x 0,5	4.2	14.4	31

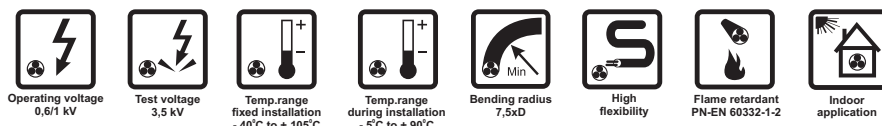
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0762 020	4 x 0,5	4.6	19.2	37
0762 027	5 x 0,5	5.3	24.0	49
0762 013	2 x 0,75	4.4	14.4	32
0762 016	3 x 0,75	4.6	21.6	39
0762 021	4 x 0,75	5.3	28.8	51
0762 028	5 x 0,75	5.8	36.0	63
0762 029	2 x 1,0	4.7	19.2	39
0762 030	3 x 1,0	5.2	28.8	51
0762 031	4 x 1,0	5.7	38.4	62
0762 032	5 x 1,0	6.3	48.0	77
0762 033	2 x 1,5	5.7	28.8	56
0762 009	3 x 1,5	6.0	43.2	70
0762 022	4 x 1,5	6.6	57.6	87
0762 034	5 x 1,5	7.3	72.0	108

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.



**TECHNOFLEKS LiYwYwżo 105°C 0,6/1 kV**  
**TECHNOFLEKS LiYwYw 105°C 0,6/1 kV**

**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**



## APPLICATIONS

**TECHNOFLEKS LiYwYw 105°C 0,6/1 kV** and **TECHNOFLEKS LiYwYwżo 105°C 0,6/1 kV** are flexible heat resistant cables designed for wet or dry locations and intended for control, protection and monitoring systems or power supply, all in power engineering. The cables are also intended for wiring industrial plants, such as production lines, air-conditioning equipment etc.

The cable can be applied at higher operating temperatures up to 105°C due to insulation and sheath made of special heat resistant PVC.

The cables are designed to offer high flexibility combined with tensile strength.

The cables are suitable for indoor installations connecting fixed and movable equipment.

Cable outer sheath is oil-resistant.

## CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- heat resistant PVC insulation - identification colour code in accordance with Technokabel's Identification System (see our *Technical Guide*),
- insulated conductors laid-up in layers, green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYwYwżo 105°C 0,6/1 kV** cable,
- special heat resistant PVC cable sheath, grey (RAL 7001), other colours also available.

**TECHNOFLEKS LiYwYwżo 105°C 0,6/1 kV**  
**TECHNOFLEKS LiYwYw 105°C 0,6/1 kV**

**CHARACTERISTICS**

Conductor cross-section	mm <sup>2</sup>	1.5	2.5	4.0	6.0	10.0
DC conductor resistance at 20°C, maximum	Ω/km	13.3	7.98	4.95	3.30	1.91

Operating voltage Uo/U	0.6/1 kV	Operating temperature range for fixed installation	from - 40 to + 105°C
Voltage test	3.5 kV rms	for movable installation	from - 5 to + 90°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

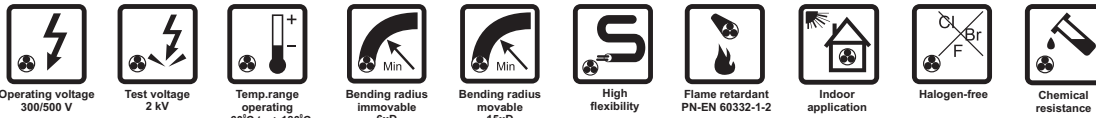
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1747 008	2 x 1,5	7.2	28.8	79
1747 009	3 x 1,5	7.6	43.2	96
1747 010	4 x 1,5	8.4	57.6	118
1747 011	5 x 1,5	9.2	72.0	146
1747 012	2 x 2,5	8.1	48.0	105
1747 001	3 x 2,5	8.6	72.0	130
1747 013	4 x 2,5	9.4	96.0	159
1747 014	5 x 2,5	10.5	120.0	202
1747 015	2 x 4,0	9.5	76.8	152
1747 002	3 x 4,0	10.3	115.2	195

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1747 016	4 x 4,0	11.3	153.6	241
1747 003	5 x 4,0	12.6	192.0	304
1747 004	3 x 6,0	11.5	172.8	262
1747 017	4 x 6,0	12.8	230.4	332
1747 005	5 x 6,0	14.1	288.0	413
1747 006	3 x 10,0	14.5	288.0	437
1747 018	4 x 10,0	15.9	384.0	546
1747 007	5 x 10,0	17.6	480.0	682

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## H05SS-K HEAT RESISTANT SILICONE CABLES



### APPLICATIONS

**H05SS-K** are flexible silicone insulated and sheathed cables intended for use in wide range of temperature. The cables are suitable for industrial applications, such as steel plants or cement, glass and ceramic factories. They are also used in lighting devices and systems.

The cables are halogen free, as well oil and chemical resistant.

### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated annealed copper wires, meeting requirements of class 5 per PN-EN 60228,
- silicone rubber insulation, colours in accordance with PN-HD 308 standard,
- insulated conductors laid-up in layers,
- black silicone rubber cable sheath, other colours also available.

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0,75</b>	<b>1,0</b>	<b>1,5</b>	<b>2,5</b>	<b>4,0</b>	<b>6,0</b>
DC conductor resistance at 20°C, maximum	Ω/km	26.7	20.0	13.7	8.21	3.39	1.95

Operating voltage U <sub>0</sub> /U	300/500 V	Minimum bending radius	
Voltage test	2000 V rms	for movable installation	15 x cable diameter
Insulation resistance, minimum	20 MΩ·km	for fixed installation	6 x cable diameter
Operating temperature range		Halogen-free	PN-EN 60754-1, PN-EN 60754-2
(adequate ventilation provided)	from - 60 to + 180°C	Cable combustibility	flame retardant
temporary	+ 200°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50525-2-83

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1748 001	2 x 0,75	6.4	14.4	60
1748 002	2 x 1,0	6.8	19.2	71
1748 003	2 x 1,5	8.4	28.8	109
1748 004	2 x 2,5	9.8	48.0	157
1748 005	3 G 0,75	7.0	21.6	75
1748 006	3 G 1,0	7.2	28.8	86
1748 007	3 G 1,5	8.9	43.2	132
1748 008	3 G 2,5	10.4	72.0	195
1748 009	3 G 4,0	12.3	115.2	289
1748 010	3 G 6,0	14.9	172.8	427

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1748 011	4 G 0,75	7.6	28.8	92
1748 012	4 G 1,0	7.9	38.4	106
1748 013	4 G 1,5	9.9	57.6	168
1748 014	4 G 2,5	11.6	96.0	248
1748 015	4 G 4,0	13.9	153.6	375
1748 016	4 G 6,0	16.6	230.4	544
1748 017	5 G 0,75	8.5	36.0	114
1748 018	5 G 1,0	8.8	48.0	131
1748 019	5 G 1,5	10.8	72.0	203
1748 020	5 G 2,5	12.9	120.0	307

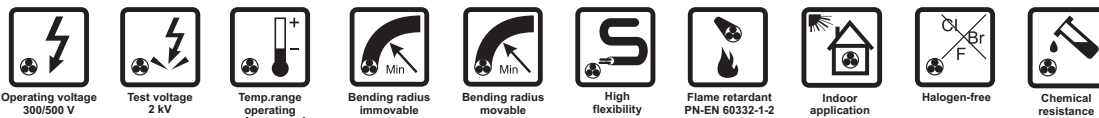
G - cables with green-yellow protective conductor

Other cross-sections and conductor counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

SiHF

HEAT RESISTANT SILICONE CABLES



APPLICATIONS

H05SS-K are flexible silicone insulated and sheathed cables intended for use in wide range of temperature. The cables are suitable for industrial applications, such as steel plants or cement, glass and ceramic factories. They are also used in lighting devices and systems.

The cables are halogen free, as well oil and chemical resistant.

CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated annealed copper wires, meeting requirements of class 5 per PN-EN 60228,
- silicone rubber insulation, colours in accordance with PN-HD 308 standard,
- insulated conductors laid-up in layers,
- black silicone rubber cable sheath, other colours also available.

CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	<b>0,75</b>	<b>1,0</b>	<b>1,5</b>	<b>2,5</b>	<b>4,0</b>	<b>6,0</b>
DC conductor resistance at 20°C, maximum	Ω/km	26.7	20.0	13.7	8.21	3.39	1.95

Operating voltage U <sub>0</sub> /U	300/500 V	Minimum bending radius	
Voltage test	2000 V rms	for movable installation	15 x cable diameter
Insulation resistance, minimum	20 MΩ·km	for fixed installation	6 x cable diameter
Operating temperature range		Halogen-free	PN-EN 60754-1, PN-EN 60754-2
(adequate ventilation provided)	from - 60 to + 180°C	Cable combustibility	flame retardant
temporary	+ 200°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Reference standards	PN-EN 50525-2-83

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1748 001	2 x 0,75	6.4	14.4	60
1748 002	2 x 1,0	6.8	19.2	71
1748 003	2 x 1,5	8.4	28.8	109
1748 004	2 x 2,5	9.8	48.0	157
1748 005	3 G 0,75	7.0	21.6	75
1748 006	3 G 1,0	7.2	28.8	86
1748 007	3 G 1,5	8.9	43.2	132
1748 008	3 G 2,5	10.4	72.0	195
1748 009	3 G 4,0	12.3	115.2	289
1748 010	3 G 6,0	14.9	172.8	427

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1748 011	4 G 0,75	7.6	28.8	92
1748 012	4 G 1,0	7.9	38.4	106
1748 013	4 G 1,5	9.9	57.6	168
1748 014	4 G 2,5	11.6	96.0	248
1748 015	4 G 4,0	13.9	153.6	375
1748 016	4 G 6,0	16.6	230.4	544
1748 017	5 G 0,75	8.5	36.0	114
1748 018	5 G 1,0	8.8	48.0	131
1748 019	5 G 1,5	10.8	72.0	203
1748 020	5 G 2,5	12.9	120.0	307

G - cables with green-yellow protective conductor  
**Other cross-sections and conductor counts available on request.**  
**TECHNOKABEL S.A. reserves the right to change specifications without prior notice.**

## SiHF

### CHARACTERISTICS

Conductor cross-section	mm <sup>2</sup>	0,5	0,75	1,0	1,5	2,5	4,0	6,0	10,0	16,0
DC conductor resistance at 20°C, maximum	Ω/km	40.1	26.7	20.0	13.7	8.21	5.09	3.39	1.95	1.24

Operating voltage U <sub>o</sub> /U	300/500 V	Minimum bending radius for movable installation for fixed installation	7.5 x cable diameter 4 x cable diameter
Voltage test	2000 V rms	Halogen-free	PN-EN 60754-1, PN-EN 60754-2
Insulation resistance, minimum	20 MΩ·km	Cable combustibility	flame retardant
Operating temperature range (adequate ventilation provided) temporary	from - 60 to + 180°C + 200°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1272 006	2 x 0,5	5.4	9.6	42
1272 007	3 G 0,5	5.9	14.5	44
1272 008	3 x 0,5	5.9	14.5	44
1272 009	4 G 0,5	6.6	19.3	58
1272 010	4 x 0,5	6.6	19.3	58
1272 011	5 G 0,5	7.3	24.0	62
1272 012	5 x 0,5	7.3	24.0	62
1272 013	6 G 0,5	8.1	28.9	79
1272 014	7 G 0,5	8.1	33.7	85
1272 015	8 G 0,5	8.7	38.4	99
1272 016	10 G 0,5	10.4	48.1	124
1272 017	12 G 0,5	10.8	57.6	141
1272 018	16 G 0,5	12.3	76.7	186
1272 019	18 G 0,5	12.9	86.5	211
1272 020	25 G 0,5	15.4	120.0	271
1272 003	2 x 0,75	6.4	14.4	53
1272 021	3 G 0,75	6.7	21.6	63
1272 004	3 x 0,75	6.7	21.6	63
1272 022	4 G 0,75	7.5	29.0	83
1272 023	4 x 0,75	7.5	29.0	83
1272 024	5 G 0,75	8.4	36.0	101
1272 025	5 x 0,75	8.4	36.0	101
1272 026	6 G 0,75	9.5	43.0	115
1272 027	7 G 0,75	9.5	50.	124
1272 028	8 G 0,75	10.9	57.7	138
1272 029	10 G 0,75	11.8	72.1	156
1272 030	12 G 0,75	12.2	86.5	185
1272 031	16 G 0,75	13.8	115.2	218
1272 032	18 G 0,75	14.5	129.7	260
1272 033	2 x 1,0	6.7	19.0	59
1272 034	3 G 1,0	7.5	29.0	77
1272 035	3 x 1,0	7.5	29.0	77
1272 036	4 G 1,0	8.1	38.0	94
1272 037	4 x 1,0	8.1	38.0	94
1272 038	5 G 1,0	8.8	48.0	115
1272 039	5 x 1,0	8.8	48.0	115
1272 040	6 G 1,0	9.6	58.0	134
1272 041	7 G 1,0	9.6	67.0	144
1272 042	8 G 1,0	11.0	76.7	175
1272 043	10 G 1,0	12.4	96.1	216
1272 044	12 G 1,0	12.6	115.2	231
1272 045	16 G 1,0	14.3	153.5	302
1272 046	18 G 1,0	15.1	172.9	340
1272 047	2 x 1,5	7.8	29.0	81
1272 048	3 G 1,5	8.2	43.0	98
1272 049	3 x 1,5	8.2	43.0	98
1272 050	4 G 1,5	8.9	58.0	122
1272 051	4 x 1,5	8.9	58.0	122
1272 052	5 G 1,5	9.8	72.0	147

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
1272 053	5 x 1,5	9.8	72.0	147
1272 054	6 G 1,5	10.8	86.0	173
1272 055	7 G 1,5	10.8	101.0	187
1272 056	8 G 1,5	12.7	114.0	213
1272 057	10 G 1,5	14.0	116.0	263
1272 058	12 G 1,5	14.7	173.0	314
1272 059	14 G 1,5	15.5	202.0	379
1272 060	16 G 1,5	16.4	231.0	445
1272 061	18 G 1,5	17.4	260.0	506
1272 062	20 G 1,5	18.2	288.0	566
1272 063	2 x 2,5	9.2	48.0	134
1272 064	3 G 2,5	9.7	72.0	152
1272 065	4 G 2,5	10.6	96.0	188
1272 066	5 G 2,5	11.6	120.0	228
1272 067	6 G 2,5	12.6	144.0	304
1272 068	7 G 2,5	12.6	168.0	320
1272 069	8 G 2,5	15.0	192.2	373
1272 070	10 G 2,5	16.6	241.0	450
1272 071	12 G 2,5	17.1	288.0	502
1272 072	16 G 2,5	19.6	384.0	659
1272 073	18 G 2,5	20.8	432.2	761
1272 005	2 x 4,0	10.6	77.0	180
1272 074	3 G 4,0	11.4	115.0	224
1272 075	4 G 4,0	13.0	154.0	295
1272 076	5 G 4,0	14.3	192.0	359
1272 077	7 G 4,0	15.5	269.0	479
1272 078	2 x 6,0	12.6	115.0	210
1272 079	3 G 6,0	13.3	173.0	270
1272 080	4 G 6,0	14.7	230.0	341
1272 081	5 G 6,0	16.4	288.0	432
1272 082	7 G 6,0	18.0	403.0	552
1272 083	2 x 10	15.4	192.0	400
1272 084	3 G 10	16.5	288.0	507
1272 085	4 G 10	18.5	384.0	644
1272 086	5 G 10	20.5	480.0	788
1272 087	7 G 10	22.6	672.2	1151
1272 088	2 x 16	19.0	308.0	591
1272 089	3 G 16	20.1	462.0	749
1272 090	4 G 16	22.2	616.0	950
1272 091	5 G 16	24.7	770.0	1204
1272 092	7 G 16	27.3	1075.3	1682

G - cables with green-yellow protective conductor

Other cross-sections and conductor counts available on request.  
TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## Bare overhead copper conductors

### BARE COPPER CONDUCTORS



### APPLICATIONS

Copper conductors **L Cu** are intended to build and repair the overhead power lines, mainly in train and tram tractions and special installations (e.g. in battery rooms).

Hard drawn copper wires enhances protection against mechanical damage during overhead lines operation.

### CONSTRUCTION

- multiwire conductors, stranded of hard drawn copper wires, meeting requirements of class 2 per DIN EN 48201 standard.

### CHARACTERISTICS

Conductor size	mm <sup>2</sup>	<b>10.0</b>	<b>16.0</b>	<b>25.0</b>	<b>35.0</b>	<b>50.0</b>
Wires construction	mm	7 x 1.35	7 x 1.70	7 x 2.10	7 x 2.50	7 x 3.00
Calculated cross-section	mm <sup>2</sup>	10.02	15.89	24.25	34.36	49.48
Calculated outer diameter	mm	4.05	5.10	6.30	7.50	9.00
Calculated DC conductor resistance at 20°C	Ω/km	1.8072	1.1385	0.7460	0.5265	0.3656
Calculated breaking force	kN	4.02	6.38	9.71	13.78	19.82
Calculated weight	kg/km	90	143	219	310	447

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## Earthing power copper conductors

### BARE COPPER CONDUCTORS



### APPLICATIONS

Power copper conductors **Lm Cu** are intended for earthing connections in control cabinets and others electrical equipment.

### CONSTRUCTION

- multiwire round conductors, stranded of bare annealed copper wires, meeting requirements of class 2 per PN-EN 60228 standard.

### CHARACTERISTICS

Conductor size	mm <sup>2</sup>	10.0	16.0	25.0	35.0	50.0	70.0	95.0	120.0
Construction	mm	7 x 1.35	7 x 1.70	7 x 2.10	7 x 2.50	7 x 3.00	19 x 2.10	19 x 2.50	19 x 2.80
Calculated cross-section	mm <sup>2</sup>	10.02	15.89	24.25	34.36	49.48	65.81	93.27	117.0
Calculated outer diameter	mm	4.05	5.10	6.30	7.50	9.00	10.50	12.50	14.00
Calculated DC conductor resistance at 20°C	Ω/km	1.8072	1.1385	0.7460	0.5265	0.3656	0.2762	0.1949	0.1554
Calculated weight	kg/km	90	143	219	310	447	597	846	1061

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

## Cables for military applications

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TECHNOKABEL S.A. is supplier of military cables designated for NATO forces and is given of **Commercial and Government Entity Code NCAGE no 1463H**.

Following types of cables being in TECHNOKABEL S.A. production portfolio are designated for military applications:

### **PKL 1x2- MILITARY TELECOMMUNICATIONS FLEXIBLE FIELD CABLE**

single pair cable for construction of broadband digital exchange lines of the type xDSL ranged up to 750 m distance with binary throughput to 2 Mb/s in communication systems field and of remote control on the battlefield;

### **PKM 420,34 mm<sup>2</sup> MILITARY CATEGORY 5E LAN FLEXIBLE FIELD CABLE**

four pairs, shielded cable assigned for construction of local connections of computer networks on the battlefield. Optimum construction of the screen guarantees 60 dB reduction of outside electromagnetic interferences.

### **PKM 5 x 2 x 0,34 mm<sup>2</sup> MILITARY DATA TRANSMISSION FLEXIBLE FIELD CABLE**

multi-pair (5 & 10 pairs), shielded cable assigned for wiring of field digital exchanges and construction of connections with stationary exchanges of the public network. Due to optimum construction of the screen that guarantees 60 dB reduction of outside electromagnetic interferences range of connections for digital transmissions with throughput 34 (37) Mb/s is 200 m assuring acceptable level of transmission errors.

### **PKM-3 10 x 2 x 0,34 mm<sup>2</sup> and PKM-4 (10x2+1)x0,50 mm<sup>2</sup> MILITARY DATA TRANSMISSION FLEXIBLE FIELD CABLE**

ten pairs (PKM-4 with additional single core) shielded cable assigned for wiring of field radio network and construction of connections with stationary exchanges of the public network. Due to optimum construction of the screen that guarantees 60 dB reduction of outside electromagnetic interferences range of connections for digital transmissions with throughput 34 (37) Mb/s is 300 m assuring acceptable level of transmission errors.

### **PKD 1 x 4 x 0,68 mm<sup>2</sup> MILITARY TELECOMMUNICATIONS FLEXIBLE FIELD CABLE**

field trunk single quadded, shielded cable assigned for construction of digital connections with higher distances - up to 400 m with binary throughput 34 (37) Mb/s.

### **PKF-A, PKF-B & PKF-C FIELD AUDIO CABLE**

mainly used in armoured military vehicles and as well in battlefield conditions for intercom communication

### **XWL-PR 50-2,25/7,25 COAXIAL CABLE WITH ELECTROMAGNETIC RADIATION**

assigned for construction of objects circuit protection systems. Due to special shield construction cable is emitting the electromagnetic field. Two parallel arranged cables (transmitter and receiver) work as sensor for protection system.

**Cables for military applications** are subject of tailor made designing according to requirements given by Customers.



## **"Tailor made" special cables designed according to requirements given by Customers**

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TECHNOKABEL S.A. is innovative, opened to new challenges company operating in various areas of the cable market continuing extending of product portfolio by custom products designated for application in most difficult conditions. Very often happens that particular technical solutions require application of cables with special construction for demanding tasks and showing specific and unique properties. Following aspects are being taken into account for proper designing of cables according to specific demand of Customer:

### **Increased scope of operating temperatures.**

Realised by using suitable materials (compounds). Cables produced by TECHNOKABEL S.A. can operate in environmental temperatures in the scope from -60°C to +200°C.

### **Increased mechanical durability.**

Realised by reinforced jackets and shields, application of special compounds, implementing of strengthening elements into cable, cable armouring by steel wires braiding, armouring by galvanized steel tapes or wires.

### **Increased chemical resistance.**

Realized by application of insulations, jackets and shields produced of special compound with higher chemical resistance. Amongst TECHNOKABEL S.A. products one can find cables resistant against oils, petroleum-derived substances, straight and aromatic hydrocarbons, acids, alkalines ...

### **Resistance to environmental conditions.**

Realized by application of compounds resistant to UV radiation and microbiological action, also by adding appropriate solutions against water crosswise and longitudinal penetration of cables.

### **Increased fire resistance.**

Mainly realized by appropriate cable construction and application of special fire resistant materials with increased incombustibility.

### **Reduced emission of smokes.**

Realized by application of compounds emitting the reduced number of smokes as well as poisoning and corrosion substances in fire.

### **Halogen-free property.**

Realized by application of halogen-free compounds with increased incombustibility (HFFR, LSZH).

### **Transmitting various signals and electromagnetic compatibility.**

Realized by hybrid cable constructions with different electric paths (wire, pair and triple) and different cross sections of wires in one cable, applying screens on bundles and cable core as well as adding multilayer screens with high effectiveness of interferences reduction.





# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20121031-E339955  
**Report Reference** E339955-20121031  
**Issue Date** 2012-OCTOBER-31

**Issued to:** TECHNOKABEL S A  
NASIELSKA 55  
04-343 WARSZAWA POLAND


**This is to certify that  
representative samples of**

COMPONENT - APPLIANCE WIRING MATERIAL  
Extruded SRPVC, Insulated Single, Class I, Group A, B, or  
A/B.  
Single or Multi-conductor Cable with non-integral PVC  
jacket, Class I, II, or I/II, Group A, B, or A/B.  
Single or Multi-conductor Cable with non-integral  
Polyurethane jacket, Class I, II, or I/II, Group A, B, or A/B.

Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

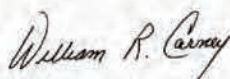
**Standard(s) for Safety:** C22.2 No. 210, Appliance Wiring Material Products.  
**Additional Information:** See the UL Online Certifications Directory at  
[www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Recognized Component Mark for Canada should be considered as being covered by UL's Recognition and Follow-Up Service meeting the appropriate Canadian requirements.

The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada:  and the manufacturer's identification and catalog number, model number, or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Recognized Component Mark on the product.



William R. Carney, Director, North American Certification Programs

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at [www.ul.com/contactus](http://www.ul.com/contactus)



# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20121031-E339955  
**Report Reference** E339955-20101030  
**Issue Date** 2012-OCTOBER-31


**Issued to:** TECHNOKABEL S A  
NASIELSKA 55  
04-343 WARSZAWA POLAND

**This is to certify that representative samples of** COMPONENT - APPLIANCE WIRING MATERIAL  
1061

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

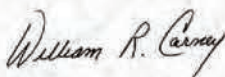
**Standard(s) for Safety:** UL 758, Appliance Wiring Material  
**Additional Information:** See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Recognized Component Mark should be considered as being covered by UL's Recognition and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

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William R. Carney, Director, North American Certification Programs  
UL LLC

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# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20121031-E339955  
**Report Reference** E339955-20101030  
**Issue Date** 2012-OCTOBER-31


**Issued to:** TECHNOKABEL S A  
NASIELSKA 55  
04-343 WARSZAWA POLAND

**This is to certify that representative samples of** COMPONENT - APPLIANCE WIRING MATERIAL  
2464

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

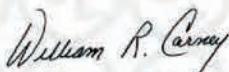
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William R. Carney, Director, North American Certification Programs  
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**WOJSKOWE CENTRUM NORMALIZACJI, JAKOŚCI I KODYFIKACJI**  
*Military Center for Standardization, Quality and Codification*  
**ODDZIAŁ KODYFIKACJI WYROBÓW OBRONNYCH**  
*Codification Branch for Defence Products*  
**43 KRAJOWE BIURO KODYFIKACYJNE**  
*43 National Codification Bureau*

# **ZAŚWIADCZENIE**

## **CERTIFICATE**

Zaświadcza się, że na podstawie złożonego wniosku jednostka organizacyjna o nazwie:  
*This is to certify that:*

**TECHNOKABEL**  
**SPÓŁKA AKCYJNA**

z siedzibą w:  
*located in:*

04-343 WARSZAWA UL. NASIELSKA 55

otrzymała  
*was given*

**Natowski Kod Podmiotu Gospodarki Narodowej:**  
***NATO Commercial and Government Entity Code NCAGE:***

# **1463H**



**DYREKTOR**

p.o. plk Jerzy MACKOWIAK

Warszawa, dnia 11 stycznia 2011 r.