



Cable catalogue

Warsaw 2006

TECHNOKABEL was established in 1982 by a group of engineers, experienced in cable manufacturing. The company's main activity that time was to give technical assistance to cable producers as well as starting-up and commissioning production lines all over the world for famous cable machinery manufacturers. In 1986 the first cables were produced in the own factory. After privatisation in 1992, TECHNOKABEL became a joint stock company with most of the shares owned by the managers. At present the company employs 167 persons.

Product quality and customer satisfaction is crucial to the company's strategy. Close co-operation with customers to understand their needs and expectations is everyday practice. Our engineers are always ready to assist and advise end-users. Research works and development of the company are of great importance. Factory space was tripled in the last six years. Modern production lines and machines have been installed, while the others are continually modernised and computerised to be more precise and effective. New cable designs, modern materials and advanced technologies are permanently being implemented. About three hundred different cable types are manufactured every month. More than four hundred new cables of are introduced to the market every year.

The company specialises, in particular, in screened flexible high performance cables for analogue and digital data transmission, applied in computer, control, telecommunication and audio-video systems. The cables can be heat and oil resistant, low temperature and abrasive wear resistant, low smoke, halogen free and flame retardant, steel wire or tape armoured. Low voltage power cables are also developed in recent period of time. Many years' experience has made us a reliable partner in designing and manufacturing cables according to customers' requirements, hybrid cables among them.

The end users of our cables come from various branches of industry, from many civilian and military institutions and from many countries, mainly EC. We also supply companies world wide known.

The integrated Enterprise Resource Planning system was implemented in 2002. It has improved the management of the company and service to our customers. A System of Quality Management was introduced in 1998 and certified the following year by TÜV Management Service GmbH, Munich, Germany. The system was verified in 2002 according to the new requirements of ISO 9001:2000 and it is valid up to November 2007 actually.

TECHNOKABEL has been awarded "Polish Business Leader", the most prestigious title conferred by the Business Centre Club. Our cables for automation and military applications have been awarded European Medals conferred by the Committee for European Integrity.

A - Cables for control and electronic systems

A01	TECHNOTRONIK LiYY
A02	TECHNOTRONIK LiYY-Nr
A03	TECHNOTRONIK LiYY-P
A04	TECHNOTRONIK LiYCY
A05	TECHNOTRONIK LiYCY-Nr
A06	TECHNOTRONIK LiYCY-P
A07	TECHNOTRONIK LiYYCY
A08	TECHNOTRONIK LiYYCY-Nr
A09	TECHNOTRONIK LiY(St)CY
A10	TECHNOTRONIK LiYCY-CY-P
A11	TECHNOTRONIK LiYC-CY-P
A12	TECHNOTRONIK LiYwYw 105°C
A13	Li2Y2YCY 2 x 1.5 mm ² (equivalent SIEMENS L-2Y2YCY, part number V45551-F21-B5)
A14	Li2Y(St)-CY 1 x 2 x 0.22 mm ² 120 Ω (equivalent BELDEN 9841)
A15	Li2YCYv-P n x 2 x 0.5 mm ² 100 Ω
A16	Li2YC11Yv-P 1 x 2 x 0.5 + 1 x 2 x 1.5 mm ²
A17	LiO2YS(St)-CY-O 2 x 2 x 0.22 mm ² 100 Ω (equivalent BELDEN 8102)
A18	TECHNOTRONIK LiY(St)-CY n x 2 x 0.22 mm ²
A19	EGSF, EGFA
A20	EISF, EIFA
A21	RD-Y(St)Y n x 2 x 0.5 mm ² Bd
A22	RE-2Y(St)Yv PIMF
A23	RE-2Y(St)Yv
A24	BUS O2YS(St)CY 1 x 2 x 0.64/2.6 mm
A25	BUS O2YS(St)CY 1 x 2 x 1.0/2.6 mm
A26	S-2Y(St)CY 8 x 2 x 0.6c mm 120 Ω

A - Cables for control and electronic systems

A27	J-2Y(St)(St)Y 120 Ω
A28	TECHNOTRONIK C-BUS/A/J 2 x 1.5 mm ²
A29	FFBUS 105°C 1 x 2 x 18 AWG
A30	EIB BUS 2 x 2 x 0.8 mm, EIB BUS-H 2 x 2 x 0.8 mm
A31	TECHNOKONTROL YKSLY
A32	TECHNOKONTROL YKSLY-P
A33	TECHNOKONTROL YKSLYekw
A34	TECHNOKONTROL YKSLYekw-P
A35	TECHNOKONTROL YKSLYekpek

B – Control and signal cables for 300/500 V

B01	TECHNOFLEKS LiYY 300/500 V, TECHNOFLEKS LiYYżo 300/500 V
B02	TECHNOFLEKS LiYY-Nr 300/500 V, TECHNOFLEKS LiYYżo-Nr 300/500 V
B03	TECHNOFLEKS LiYY-P 300/500 V, TECHNOFLEKS LiYY-P-Nr 300/500 V
B04	TECHNOFLEKS LiYCY 300/500 V, TECHNOFLEKS LiYCYżo 300/500 V
B05	TECHNOFLEKS LiYCY-Nr 300/500 V, TECHNOFLEKS LiYCYżo-Nr 300/500 V
B06	TECHNOFLEKS LiYCY-P 300/500 V, TECHNOFLEKS LiYCY-P-Nr 300/500 V
B07	TECHNOFLEKS LiYYCY 300/500 V, TECHNOFLEKS LiYYCYżo 300/500 V
B08	TECHNOFLEKS LiYYCY-Nr 300/500 V, TECHNOFLEKS LiYYCYżo-Nr 300/500 V
B09	YStY, YStYżo
B10	YStYekw, YStYekwżo
B11	TECHNOKONTROL YKSLY 300/500 V, TECHNOKONTROL YKSLYżo 300/500 V
B12	TECHNOKONTROL YKSLY-Nr 300/500 V, TECHNOKONTROL YKSLYżo-Nr 300/500 V
B13	TECHNOKONTROL YKSLY-P 300/500 V, TECHNOKONTROL YKSLY-P-Nr 300/500 V
B14	TECHNOKONTROL YKSLYekw 300/500 V, TECHNOKONTROL YKSLYekwżo 300/500 V

B15	TECHNOKONTROL YKSLYekw-Nr 300/500 V, TECHNOKONTROL YKSLYekwżo-Nr 300/500 V
B16	TECHNOKONTROL YKSLYekw-P 300/500 V, TECHNOKONTROL YKSLYekw-P-Nr 300/500 V
B17	TECHNOKONTROL YKSLYekpek 300/500 V, TECHNOKONTROL YKSLYekpek-Nr 300/500 V
B18	TECHNOKONTROL YKSLXS-Nr 300/500 V, TECHNOKONTROL YKSLXSżo-Nr 300/500 V
B19	TECHNOKONTROL YKSLXS-P-Nr 300/500 V
B20	TECHNOKONTROL YKSLXSekw-Nr 300/500 V, TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V
B21	TECHNOKONTROL YKSLXSekw-P-Nr 300/500 V
B22	TECHNOKONTROL YKSLXSekpek-Nr 300/500 V

C – Intrinsically safe cables

C01	TECHNOKONTROL IB-YSLY
C02	TECHNOKONTROL IB-YSLY-P
C03	TECHNOKONTROL IB-YSL(St)Y
C04	TECHNOKONTROL IB-YSL(St)Y P
C05	TECHNOKONTROL IB-YSL(St)Y PIMF
C06	TECHNOKONTROL IB-YSLCY
C07	TECHNOKONTROL IB-YSLYCY-P
C08	TECHNOKONTROL IB-2YSL(St)Y
C09	TECHNOKONTROL IB1-YSLY
C10	TECHNOKONTROL IB1-YSLY-P
C11	TECHNOKONTROL IB1-YSL(St)Y
C12	TECHNOKONTROL IB1-YSL(St)Y-P
C13	TECHNOKONTROL IB1-YSL(St)Y PIMF
C14	TECHNOKONTROL IB1-YSLCY
C15	TECHNOKONTROL IB1-YSLYCY-P

D – Control and signal cables for 0.6/1 kV

D01	TECHNOFLEKS LiYY 0.6/1 kV, TECHNOFLEKS LiYYžo 0.6/1 kV
D02	TECHNOFLEKS LiYY-Nr 0.6/1 kV, TECHNOFLEKS LiYYžo-Nr 0.6/1 kV
D03	TECHNOFLEKS LiYY-P 0.6/1 kV, TECHNOFLEKS LiYY-P-Nr 0.6/1 kV
D04	TECHNOFLEKS LiYCY 0.6/1 kV, TECHNOFLEKS LiYCYžo 0.6/1 kV
D05	TECHNOFLEKS LiYCY-Nr 0.6/1 kV, TECHNOFLEKS LiYCYžo-Nr 0.6/1 kV
D06	TECHNOFLEKS LiYCY-P 0.6/1 kV, TECHNOFLEKS LiYCY-P-Nr 0.6/1 kV
D07	TECHNOFLEKS LiYwYw 105°C 0.6/1 kV, TECHNOFLEKS LiYwYwžo 105°C 0.6/1 kV
D08	TECHNOFLEKS 2YSLCY-J, TECHNOFLEKS 2YSLCYK-J
D09	TECHNOKONTROL YKSLY 0.6/1 kV, TECHNOKONTROL YKSLYžo 0.6/1 kV
D10	TECHNOKONTROL YKSLY-Nr 0.6/1 kV, TECHNOKONTROL YKSLYžo-Nr 0.6/1 kV
D11	TECHNOKONTROL YKSLY-P 0.6/1 kV, TECHNOKONTROL YKSLY-P-Nr 0.6/1 kV
D12	TECHNOKONTROL YKSLYekw 0.6/1 kV, TECHNOKONTROL YKSLYekwžo 0.6/1 kV
D13	TECHNOKONTROL YKSLYekw-Nr 0.6/1 kV, TECHNOKONTROL YKSLYekwžo-Nr 0.6/1 kV
D14	TECHNOKONTROL YKSLYekw-P 0.6/1 kV, TECHNOKONTROL YKSLYekw-P-Nr 0.6/1 kV
D15	TECHNOKONTROL YKSLYekpek 0.6/1 kV, TECHNOKONTROL YKSLYekpek-Nr 0.6/1 kV
D16	TECHNOKONTROL YKSLXS-Nr 0.6/1 kV, TECHNOKONTROL YKSLXSžo-Nr 0.6/1 kV
D17	TECHNOKONTROL YKSLXS-P-Nr 0.6/1 kV
D18	TECHNOKONTROL YKSLXSekw-Nr 0.6/1 kV, TECHNOKONTROL YKSLXSekwžo-Nr 0.6/1 kV
D19	TECHNOKONTROL YKSLXSekw-P-Nr 0.6/1 kV
D20	TECHNOKONTROL YKSLXSekpek-Nr 0.6/1 kV

E – Power cables for 0.6/1 kV

E01 YKXS 0.6/1 kV, YKXSzo 0.6/1 kV

E02 YKXSektmy 0.6/1 kV, YKXSektmyzo 0.6/1 kV

E03 YKXSftly 0.6/1 kV, YKXSftlyzo 0.6/1 kV

E04 YKY 0.6/1 kV, YKYzo 0.6/1 kV (equivalent NYY-O 0.6/1 kV and NYY-J 0.6/1 kV)

E05 YKYektmy 0.6/1 kV, YKYektmyzo 0.6/1 kV

E06 YKYftly 0.6/1 kV, YKYftlyzo 0.6/1 kV

E07 (N)HXH PH90 0.6/1 kV, (N)HXCH PH90 0.6/1 kV

F – Data transmission cables

F01 LAN UTP cat.5e 4 x 2 x 0.5 mm – 155 MHz

F02 LAN UTP-H cat.5e 4 x 2 x 0.5 mm – 155 MHz

F03 LAN UTP cat.6 4 x 2 x 0.57 mm – 250 MHz

F04 LAN FTP cat.5e 4 x 2 x 0.5 mm – 155 MHz

F05 LAN FTP cat.5e 4 x 2 x 0.14c mm²

F06 LAN FTP-C cat.5e 4 x 2 x 0.14c mm²

F07 LAN FTP-C-11Y cat.5e 4 x 2 x 0.14c mm²

F08 TECHNODATA LAN-T10 cat.5 1 x 2 x 0.34c mm²

F09 TECHNODATA LAN-T11B cat.5e 4 x 2 x 0.5 mm

F10 TECHNODATA LAN-T14 3 x 2 x 1.0 mm² - 10 MHz

F11 TECHNODATA LAN-T15 cat.5 4 x 2 x 0.8 mm

G – Fire alarm cables

G01 YnTKSY, YnTKSYekw, YnTKSXekw

G02 HTKSH, HTKSHekw

G03 HTKSH PH90, HTKSHekw PH90

A - Cables for control and electronic systems

TECHNOTRONIK LiYY

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK LiYY is a control 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.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiY11Y – polyurethane sheathed cable of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

TECHNOTRONIK LiHH – 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.

TECHNOTRONIK LiYY – specially designed intrinsically safe cable.

TECHNOTRONIK LiYY

CHARACTERISTICS

Conductor cross-section	mm ²	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 conductor resistance at 20°C, maximum	Ω/km	138.0	79.0	57.0	39.0	26.0	19.5	13.3
Capacitance between conductors at 1 kHz, appr.	nF/km	90	100	110	100	110	120	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.2.401	2 x 0.14	3.3	2.7	15.0
5.2.402	3 x 0.14	3.5	4.1	17.0
5.2.403	4 x 0.14	3.7	5.4	21.5
5.2.404	5 x 0.14	4.0	6.8	25.0
5.2.405	6 x 0.14	4.4	8.1	28.0
5.2.406	7 x 0.14	4.4	9.5	30.0
5.2.407	8 x 0.14	4.8	10.8	34.5
5.2.408	10 x 0.14	5.6	13.5	45.0
5.2.409	12 x 0.14	5.8	16.2	50.0
5.2.410	14 x 0.14	6.0	18.9	56.0
5.2.411	16 x 0.14	6.3	21.6	62.5
5.2.412	18 x 0.14	6.7	24.3	68.5
5.2.413	20 x 0.14	7.0	27.0	75.0
5.2.414	21 x 0.14	7.1	28.4	78.0
5.2.416	27 x 0.14	7.9	36.5	100.5
5.2.417	30 x 0.14	8.3	40.5	108.0
5.2.419	36 x 0.14	9.0	48.6	126.0
5.2.420	40 x 0.14	9.4	54.0	138.0
5.2.422	44 x 0.14	10.2	59.4	156.5
5.2.423	48 x 0.14	10.4	64.8	167.5
5.2.424	52 x 0.14	10.6	70.2	178.0
5.2.425	56 x 0.14	10.9	75.2	189.0
5.2.426	61 x 0.14	11.3	82.4	204.0
5.2.427	2 x 0.25	3.7	4.8	19.0
5.2.428	3 x 0.25	3.9	7.2	23.0
5.2.429	4 x 0.25	4.2	9.6	27.0
5.2.430	5 x 0.25	4.6	12.0	32.5
5.2.431	6 x 0.25	5.0	14.4	37.0
5.2.432	7 x 0.25	5.0	16.8	41.0
5.2.433	8 x 0.25	5.7	19.2	48.5
5.2.434	10 x 0.25	6.4	24.0	60.0
5.2.435	12 x 0.25	6.6	28.8	68.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.2.436	14 x 0.25	6.9	33.6	76.5
5.2.437	16 x 0.25	7.3	38.4	85.5
5.2.438	18 x 0.25	7.9	43.2	98.0
5.2.439	20 x 0.25	8.2	48.0	107.0
5.2.440	21 x 0.25	8.4	50.4	111.0
5.2.441	24 x 0.25	9.1	57.6	124.5
5.2.442	27 x 0.25	9.3	64.8	138.5
5.2.443	30 x 0.25	9.6	72.0	151.5
5.2.445	36 x 0.25	10.6	86.4	182.5
5.2.446	40 x 0.25	11.1	96.0	199.5
5.2.448	44 x 0.25	11.8	105.6	219.5
5.2.449	48 x 0.25	12.2	115.2	240.5
5.2.450	52 x 0.25	12.5	124.8	256.5
5.2.451	56 x 0.25	12.9	134.4	273.5
5.2.452	61 x 0.25	13.3	146.4	295.5
5.2.453	2 x 0.34	3.9	6.5	23.0
5.2.454	3 x 0.34	4.1	9.8	27.0
5.2.455	4 x 0.34	4.4	13.1	32.5
5.2.456	5 x 0.34	4.8	16.3	38.5
5.2.457	6 x 0.34	5.5	19.6	46.5
5.2.458	7 x 0.34	5.5	22.9	51.0
5.2.459	8 x 0.34	6.0	26.1	57.5
5.2.460	10 x 0.34	6.8	32.7	72.0
5.2.461	12 x 0.34	7.0	39.2	82.0
5.2.462	14 x 0.34	7.4	45.7	92.0
5.2.463	16 x 0.34	7.9	52.2	107.5
5.2.464	18 x 0.34	8.4	58.8	118.5
5.2.465	20 x 0.34	8.8	65.3	129.5
5.2.466	21 x 0.34	8.9	68.6	135.0
5.2.468	27 x 0.34	10.1	88.2	173.5
5.2.469	30 x 0.34	10.4	98.0	189.0
5.2.471	36 x 0.34	11.2	117.6	222.0

TECHNOTRONIK LIYY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.2.472	40 x 0.34	11.8	130.7	244.0
5.2.474	44 x 0.34	12.8	143.7	273.5
5.2.475	48 x 0.34	13.0	156.7	294.0
5.2.476	52 x 0.34	13.3	169.8	313.5
5.2.477	56 x 0.34	13.8	182.4	335.5
5.2.478	61 x 0.34	14.6	199.2	375.0
5.2.481	2 x 0.5	4.7	9.6	33.5
5.2.482	3 x 0.5	4.9	14.4	37.5
5.2.483	4 x 0.5	5.6	19.2	48.0
5.2.484	5 x 0.5	6.1	24.0	56.5
5.2.485	6 x 0.5	6.6	28.8	65.0
5.2.486	7 x 0.5	6.7	33.6	73.0
5.2.487	8 x 0.5	7.3	38.4	83.5
5.2.488	10 x 0.5	8.6	48.0	106.5
5.2.489	12 x 0.5	8.8	57.6	121.5
5.2.490	14 x 0.5	9.3	67.2	137.0
5.2.491	16 x 0.5	10.0	76.8	158.0
5.2.492	18 x 0.5	10.5	86.4	175.5
5.2.493	20 x 0.5	11.0	96.0	192.5
5.2.494	21 x 0.5	11.2	100.8	201.0
5.2.496	27 x 0.5	12.7	129.6	258.5
5.2.497	30 x 0.5	13.1	144.0	282.0
5.2.499	36 x 0.5	14.6	172.8	344.0
5.2.500	40 x 0.5	15.3	192.0	379.0
5.2.502	44 x 0.5	16.3	211.2	416.5
5.2.503	48 x 0.5	16.6	230.4	447.5
5.2.504	52 x 0.5	17.0	249.6	478.0
5.2.505	56 x 0.5	17.5	268.8	511.5
5.2.506	61 x 0.5	18.6	298.8	553.5
5.2.508	2 x 0.75	5.2	14.4	42.5
5.2.509	3 x 0.75	5.7	21.8	49.5
5.2.510	4 x 0.75	6.2	28.8	60.0
5.2.511	5 x 0.75	6.8	36.0	74.0
5.2.512	6 x 0.75	7.4	43.2	85.5
5.2.513	7 x 0.75	7.4	50.4	93.5
5.2.514	8 x 0.75	8.4	57.6	110.0
5.2.515	10 x 0.75	9.6	72.0	135.0
5.2.516	12 x 0.75	10.1	86.4	160.0
5.2.518	16 x 0.75	11.2	115.2	205.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.2.520	20 x 0.75	12.6	144.0	256.5
5.2.522	24 x 0.75	14.0	172.8	303.0
5.2.523	27 x 0.75	14.7	194.4	349.0
5.2.524	30 x 0.75	15.2	216.0	382.0
5.2.526	36 x 0.75	16.4	259.2	449.5
5.2.527	40 x 0.75	17.2	284.0	495.5
5.2.528	42 x 0.75	17.7	302.4	518.0
5.2.529	44 x 0.75	18.4	316.8	540.5
5.2.530	48 x 0.75	19.1	345.6	597.5
5.2.531	52 x 0.75	19.6	374.4	639.0
5.2.532	56 x 0.75	20.2	403.2	683.0
5.2.533	61 x 0.75	20.8	439.2	738.5
5.2.536	2 x 1.0	5.6	19.2	51.5
5.2.537	3 x 1.0	5.9	28.8	57.0
5.2.538	4 x 1.0	6.4	38.4	71.0
5.2.539	5 x 1.0	7.1	48.0	86.0
5.2.540	6 x 1.0	7.9	57.6	104.5
5.2.541	7 x 1.0	7.9	67.2	115.0
5.2.543	10 x 1.0	10.2	96.0	166.5
5.2.544	12 x 1.0	10.5	115.2	191.5
5.2.565	16 x 1.0	11.7	153.6	246.0
5.2.566	20 x 1.0	13.1	192.0	307.0
5.2.567	25 x 1.0	15.0	240.0	389.5
5.2.568	27 x 1.0	15.3	259.2	422.5
5.2.569	30 x 1.0	15.9	288.0	462.0
5.2.570	36 x 1.0	17.1	245.6	543.0
5.2.571	40 x 1.0	18.2	384.0	600.5
5.2.546	2 x 1.5	6.6	29.0	73.5
5.2.547	3 x 1.5	7.0	43.5	79.5
5.2.548	4 x 1.5	7.9	58.0	103.0
5.2.549	5 x 1.5	8.6	72.5	124.0
5.2.550	6 x 1.5	9.4	87.0	144.0
5.2.551	7 x 1.5	9.4	101.5	164.5
5.2.552	9 x 1.5	11.2	130.5	204.5
5.2.554	12 x 1.5	12.8	174.0	280.0
5.2.556	16 x 1.5	14.6	232.0	374.0
5.2.557	20 x 1.5	16.2	290.0	458.0
5.2.558	24 x 1.5	18.0	348.0	549.5

Other cross-sections and conductor counts are available upon request.

TECHNOTRONIK LiYY-Nr**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS**

**APPLICATIONS**

TECHNOTRONIK LiYY-Nr is a control 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.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiY11Y-Nr – polyurethane sheathed cable 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 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.

TECHNOTRONIK LiYY-Nr – specially designed intrinsically safe cable.

TECHNOTRONIK LiYY-Nr
CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.0.301	2 x 0.5	4.7	9.6	33.5
5.0.302	3 x 0.5	4.9	14.4	37.5
5.0.303	4 x 0.5	5.6	19.2	47.0
5.0.304	5 x 0.5	6.1	24.0	56.5
5.0.305	6 x 0.5	6.6	28.8	65.0
5.0.306	7 x 0.5	6.7	33.6	73.0
5.0.307	8 x 0.5	7.3	38.4	83.5
5.0.308	10 x 0.5	8.6	48.0	106.5
5.0.309	12 x 0.5	8.8	57.6	121.5
5.0.310	14 x 0.5	9.3	67.2	137.0
5.0.311	16 x 0.5	10.0	76.8	158.0
5.0.312	18 x 0.5	10.5	86.4	175.5
5.0.313	20 x 0.5	11.0	96.0	192.5
5.0.314	21 x 0.5	11.2	100.8	201.0
5.0.315	27 x 0.5	12.7	129.6	257.5
5.0.316	30 x 0.5	13.1	144.0	281.5
5.0.317	36 x 0.5	14.6	172.8	344.0
5.0.318	40 x 0.5	15.3	192.0	379.0
5.2.319	44 x 0.5	16.3	211.2	416.5
5.2.320	48 x 0.5	16.6	230.4	447.5
5.0.331	2 x 0.75	5.2	14.4	42.5
5.0.332	3 x 0.75	5.7	21.8	49.5
5.0.333	4 x 0.75	6.2	28.8	60.0
5.0.334	5 x 0.75	6.8	36.0	74.0
5.0.335	6 x 0.75	7.4	43.2	85.5
5.0.336	7 x 0.75	7.4	50.4	93.5
5.0.337	8 x 0.75	8.4	57.6	110.0
5.0.338	10 x 0.75	9.6	72.0	135.0
5.0.339	12 x 0.75	10.1	86.4	160.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.0.340	16 x 0.75	11.2	115.2	205.5
5.0.341	20 x 0.75	12.6	144.0	256.5
5.0.342	24 x 0.75	14.0	172.8	303.0
5.0.343	27 x 0.75	14.7	194.4	349.0
5.0.344	30 x 0.75	15.2	216.0	382.0
5.0.345	36 x 0.75	16.4	259.2	449.5
5.0.346	40 x 0.75	17.2	284.0	495.5
5.0.351	2 x 1.0	5.6	19.2	51.5
5.0.352	3 x 1.0	5.9	28.8	57.0
5.0.353	4 x 1.0	6.4	38.4	71.0
5.0.354	5 x 1.0	7.1	48.0	86.0
5.0.355	6 x 1.0	7.9	57.6	104.5
5.0.356	7 x 1.0	7.9	67.2	115.0
5.0.357	10 x 1.0	10.2	96.0	166.5
5.0.358	12 x 1.0	10.5	115.2	191.5
5.0.359	16 x 1.0	11.7	153.6	246.0
5.0.360	20 x 1.0	13.1	192.0	307.0
5.0.361	25 x 1.0	15.0	240.0	389.5
5.0.371	2 x 1.5	6.6	29.0	73.5
5.0.372	3 x 1.5	7.0	43.5	79.5
5.0.373	4 x 1.5	7.9	58.0	103.0
5.0.374	5 x 1.5	8.6	72.5	124.0
5.0.375	6 x 1.5	9.4	87.0	144.0
5.0.376	7 x 1.5	9.4	101.5	164.5
5.0.377	9 x 1.5	11.2	130.5	204.5
5.0.378	12 x 1.5	12.8	174.0	280.0
5.0.379	16 x 1.5	14.6	232.0	374.0
5.0.380	20 x 1.5	16.2	290.0	458.0

Other cross-sections and conductor counts are available upon request.

TECHNOTRONIK LiYY-P

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK LiYY-P is a multipair control 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.

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

Cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYY-P-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiY11Y-P – polyurethane sheathed cable 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 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.

TECHNOTRONIK LiYY-P – specially designed intrinsically safe cable.

TECHNOTRONIK LiYY-P

CHARACTERISTICS

Conductor cross-section	mm ²	0.14	0.25	0.34	0.5	0.75	1.0
Operating voltage peak value	V	350	350	350	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	276.0	158.0	114.0	78.0	52.0	39.0
Mutual capacitance at 1 kHz, approximate	nF/km	80	90	100	90	100	110

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.2.701	2 x 2 x 0.14	4.8	5.4	26.0
5.2.702	3 x 2 x 0.14	5.0	8.0	31.0
5.2.703	4 x 2 x 0.14	5.7	10.7	40.0
5.2.704	5 x 2 x 0.14	6.2	13.4	47.0
5.2.705	6 x 2 x 0.14	6.8	16.1	55.5
5.2.706	7 x 2 x 0.14	6.8	18.8	60.0
5.2.707	8 x 2 x 0.14	7.2	21.4	67.0
5.2.708	10 x 2 x 0.14	8.3	26.8	84.0
5.2.709	12 x 2 x 0.14	8.7	32.2	96.5
5.2.711	16 x 2 x 0.14	10.0	42.9	125.5
5.2.713	25 x 2 x 0.14	12.2	67.0	186.0
5.2.714	30 x 2 x 0.14	13.2	80.4	217.0
5.2.716	2 x 2 x 0.25	5.7	9.6	36.5
5.2.717	3 x 2 x 0.25	6.0	14.4	44.0
5.2.718	4 x 2 x 0.25	6.5	19.2	53.0
5.2.719	5 x 2 x 0.25	7.2	24.0	62.5
5.2.720	6 x 2 x 0.25	8.0	28.8	77.5
5.2.121	7 x 2 x 0.25	8.0	33.6	85.5
5.2.722	8 x 2 x 0.25	8.0	38.4	94.0
5.2.723	10 x 2 x 0.25	8.5	48.0	115.0
5.2.726	16 x 2 x 0.25	11.6	76.8	172.0
5.2.731	2 x 2 x 0.34	6.7	13.4	46.5
5.2.732	3 x 2 x 0.34	7.1	20.0	56.0
5.2.733	4 x 2 x 0.34	8.0	26.6	72.0
5.2.734	5 x 2 x 0.34	8.7	33.3	85.5
5.2.735	6 x 2 x 0.34	9.5	40.0	100.0
5.2.736	7 x 2 x 0.34	9.5	46.6	111.5
5.2.737	8 x 2 x 0.34	10.3	53.3	129.5
5.2.738	10 x 2 x 0.34	11.7	66.6	157.0
5.2.739	12 x 2 x 0.34	12.5	79.9	185.0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.2.744	30 x 2 x 0.34	16.8	199.8	393.0
5.2.746	2 x 2 x 0.5	7.3	19.2	57.5
5.2.747	3 x 2 x 0.5	8.0	28.8	75.5
5.2.748	4 x 2 x 0.5	8.7	38.4	91.0
5.2.749	5 x 2 x 0.5	9.8	48.0	113.0
5.2.750	6 x 2 x 0.5	10.7	57.6	134.5
5.2.751	7 x 2 x 0.5	10.7	67.2	149.5
5.2.752	8 x 2 x 0.5	11.5	76.8	167.5
5.2.753	10 x 2 x 0.5	13.1	96.0	210.0
5.2.754	12 x 2 x 0.5	13.8	115.2	242.0
5.2.757	18 x 2 x 0.5	16.8	172.8	366.0
5.2.765	2 x 2 x 0.75	8.4	28.2	74.0
5.2.766	3 x 2 x 0.75	8.9	43.2	94.0
5.2.767	4 x 2 x 0.75	9.5	57.6	120.5
5.2.768	5 x 2 x 0.75	11.0	72.0	143.5
5.2.769	6 x 2 x 0.75	12.2	86.4	175.0
5.2.770	7 x 2 x 0.75	12.2	100.8	196.0
5.2.771	8 x 2 x 0.75	13.0	115.2	221.0
5.2.772	10 x 2 x 0.75	15.2	144.0	283.0
5.2.775	16 x 2 x 0.75	18.0	230.4	419.0
5.2.780	2 x 2 x 1.0	8.7	38.4	86.0
5.2.781	3 x 2 x 1.0	9.3	57.6	110.5
5.2.782	4 x 2 x 1.0	10.4	76.8	141.5
5.2.783	5 x 2 x 1.0	11.5	96.0	169.0
5.2.784	6 x 2 x 1.0	12.7	115.2	207.0
5.2.785	7 x 2 x 1.0	12.7	134.4	233.5
5.2.786	8 x 2 x 1.0	13.6	153.6	262.0
5.2.787	10 x 2 x 1.0	15.8	192.0	336.0
5.2.788	12 x 2 x 1.0	16.6	230.4	393.5
5.2.790	16 x 2 x 1.0	19.2	307.2	521.0

Other cross-sections and pair counts available on request.

TECHNOTRONIK LiYCY

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK LiYCY is an overall shielded control 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.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYCEY – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYCY – specially designed intrinsically safe cable.

TECHNOTRONIK LIYCY
CHARACTERISTICS

Conductor cross-section	mm ²	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 conductor resistance at 20°C, maximum	Ω/km	138.0	79.0	57.0	39.0	26.0	19.5	13.3
Capacitance between conductors at 1 kHz, appr.	nF/km	90	100	110	100	110	120	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.102	2 x 0.14	3.8	9.5	21.5
5.7.103	3 x 0.14	4.0	12.0	25.5
5.7.104	4 x 0.14	4.2	13.3	29.0
5.7.105	5 x 0.14	4.5	15.2	33.0
5.7.106	6 x 0.14	4.9	17.9	38.0
5.7.107	7 x 0.14	4.9	19.2	40.5
5.7.108	8 x 0.14	5.5	22.5	48.5
5.7.109	10 x 0.14	6.1	25.8	56.0
5.7.110	12 x 0.14	6.3	29.6	63.0
5.7.111	14 x 0.14	6.5	32.4	69.5
5.7.112	16 x 0.14	6.8	35.7	76.5
5.7.113	18 x 0.14	7.2	39.8	83.0
5.7.114	20 x 0.14	7.7	43.3	93.0
5.7.115	21 x 0.14	7.8	45.5	97.0
5.7.118	27 x 0.14	8.6	54.5	116.5
5.7.119	30 x 0.14	8.8	59.6	126.5
5.7.121	36 x 0.14	9.9	80.6	156.0
5.7.122	40 x 0.14	10.3	88.6	175.5
5.7.124	44 x 0.14	10.9	95.9	190.5
5.7.125	48 x 0.14	11.1	102.0	202.0
5.7.126	52 x 0.14	11.3	107.6	213.0
5.7.127	56 x 0.14	11.6	114.7	227.0
5.7.128	61 x 0.14	12.2	122.9	248.5
5.7.132	2 x 0.25	4.2	12.6	26.0
5.7.133	3 x 0.25	4.4	15.4	31.5
5.7.134	4 x 0.25	4.7	19.1	37.0
5.7.135	5 x 0.25	5.1	22.2	43.0
5.7.136	6 x 0.25	5.7	25.8	51.5
5.7.137	7 x 0.25	5.7	28.1	55.0
5.7.138	8 x 0.25	6.2	31.4	61.0
5.7.139	10 x 0.25	6.9	38.1	73.0
5.7.140	12 x 0.25	7.1	43.5	82.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.141	14 x 0.25	7.4	48.9	91.5
5.7.142	16 x 0.25	8.0	54.8	105.0
5.7.143	18 x 0.25	8.4	60.5	115.0
5.7.144	20 x 0.25	8.7	65.9	125.0
5.7.145	21 x 0.25	8.9	68.8	129.0
5.7.146	24 x 0.25	10.0	89.1	157.0
5.7.148	27 x 0.25	10.2	97.9	176.5
5.7.149	30 x 0.25	10.5	105.3	189.5
5.7.151	36 x 0.25	11.3	122.2	217.5
5.7.152	40 x 0.25	11.8	134.4	239.5
5.7.154	44 x 0.25	12.7	146.0	265.0
5.7.155	48 x 0.25	12.9	156.4	282.0
5.7.156	52 x 0.25	13.2	166.9	300.0
5.7.157	56 x 0.25	13.6	178.2	319.5
5.7.158	61 x 0.25	14.0	191.1	341.0
5.7.162	2 x 0.34	4.4	14.9	29.5
5.7.163	3 x 0.34	4.6	19.5	36.5
5.7.164	4 x 0.34	4.9	22.9	42.5
5.7.165	5 x 0.34	5.5	28.0	53.5
5.7.166	6 x 0.34	6.0	31.8	59.0
5.7.167	7 x 0.34	6.0	35.0	64.5
5.7.168	8 x 0.34	6.5	39.6	73.5
5.7.169	10 x 0.34	7.3	48.6	87.5
5.7.170	12 x 0.34	7.7	55.5	102.0
5.7.171	14 x 0.34	8.0	62.8	114.0
5.7.172	16 x 0.34	8.4	70.4	126.5
5.7.173	18 x 0.34	8.9	78.2	139.5
5.7.174	20 x 0.34	9.5	90.9	162.0
5.7.175	21 x 0.34	9.6	100.6	168.0
5.7.178	27 x 0.34	10.8	124.1	210.0
5.7.179	30 x 0.34	11.1	135.0	228.0
5.7.181	36 x 0.34	12.2	158.1	270.5

TECHNOTRONIK LIYCY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.182	40 x 0.34	12.7	172.9	294.5
5.7.184	44 x 0.34	13.5	189.6	322.5
5.7.185	48 x 0.34	13.7	203.0	343.0
5.7.186	52 x 0.34	14.4	217.3	378.0
5.7.187	56 x 0.34	14.8	231.9	402.0
5.7.188	61 x 0.34	15.5	268.5	449.5
5.7.191	1 x 0.5	3.3	10.2	21.1
5.7.192	2 x 0.5	5.2	20.1	39.5
5.7.193	3 x 0.5	5.6	25.9	51.5
5.7.194	4 x 0.5	6.1	31.4	60.0
5.7.195	5 x 0.5	6.6	37.8	71.0
5.7.196	6 x 0.5	7.1	44.0	82.0
5.7.197	7 x 0.5	7.1	48.7	89.0
5.7.198	8 x 0.5	8.0	57.9	107.5
5.7.199	10 x 0.5	9.1	78.7	137.5
5.7.200	12 x 0.5	9.3	89.0	154.5
5.7.201	14 x 0.5	10.0	101.3	178.4
5.7.202	16 x 0.5	10.5	111.9	196.0
5.7.203	18 x 0.5	11.0	123.1	215.5
5.7.204	20 x 0.5	11.7	135.0	235.5
5.7.205	21 x 0.5	12.1	140.5	250.5
5.7.208	27 x 0.5	13.4	174.3	306.0
5.7.209	30 x 0.5	13.8	190.1	332.0
5.7.211	36 x 0.5	15.5	241.5	418.5
5.7.212	40 x 0.5	16.2	264.0	455.5
5.7.213	42 x 0.5	16.6	276.0	466.5
5.7.214	44 x 0.5	17.2	285.8	488.0
5.7.215	48 x 0.5	17.5	306.2	520.0
5.7.216	52 x 0.5	17.9	327.3	555.0
5.7.217	56 x 0.5	19.0	373.3	631.5
5.7.218	61 x 0.5	19.6	397.5	669.0
5.7.222	2 x 0.75	5.9	26.4	50.5
5.7.223	3 x 0.75	6.2	34.0	62.5
5.7.224	4 x 0.75	6.7	42.7	76.0
5.7.225	5 x 0.75	7.3	51.6	90.0
5.7.226	6 x 0.75	8.1	60.2	108.5
5.7.227	7 x 0.75	8.1	67.3	118.5
5.7.228	8 x 0.75	8.9	76.6	133.5
5.7.229	10 x 0.75	10.5	106.4	179.0
5.7.230	12 x 0.75	10.8	121.7	202.5
5.7.232	16 x 0.75	12.1	154.5	258.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.234	20 x 0.75	13.3	188.0	310.0
5.7.236	24 x 0.75	15.3	240.3	395.0
5.7.239	27 x 0.75	15.6	263.1	430.5
5.7.238	30 x 0.75	16.1	287.1	466.5
5.7.242	34 x 0.75	16.9	320.1	512.0
5.7.240	36 x 0.75	17.3	334.8	535.5
5.7.241	40 x 0.75	19	393.1	630.5
5.7.252	2 x 1.0	6.1	31.4	56.5
5.7.253	3 x 1.0	6.4	42.0	72.5
5.7.254	4 x 1.0	6.9	52.6	87.5
5.7.255	5 x 1.0	7.8	64.7	108.0
5.7.256	6 x 1.0	8.4	75.2	125.0
5.7.257	7 x 1.0	8.4	84.6	137.5
5.7.259	10 x 1.0	10.9	131.7	207.0
5.7.260	12 x 1.0	11.2	151.2	235.0
5.7.262	16 x 1.0	12.6	194.6	303.0
5.7.264	20 x 1.0	13.8	237.0	366.5
5.7.267	25 x 1.0	15.9	309.6	476.5
5.7.268	27 x 1.0	16.2	334.9	506.0
5.7.269	30 x 1.0	16.8	364.2	548.5
5.7.270	36 x 1.0	18.2	451.8	664.5
5.7.272	2 x 1.5	7.1	43.3	75.5
5.7.273	3 x 1.5	7.7	58.2	100.0
5.7.274	4 x 1.5	8.3	73.6	124.0
5.7.275	5 x 1.5	9.3	100.5	159.0
5.7.276	6 x 1.5	10.3	118.3	189.5
5.7.277	7 x 1.5	10.3	132.1	208.5
5.7.278	9 x 1.5	12.1	165.7	265.5
5.7.280	12 x 1.5	13.5	213.3	336.5
5.7.282	16 x 1.5	15.5	292.6	456.5
5.7.284	20 x 1.5	17.1	356.9	552.0
5.7.285	21 x 1.5	17.7	373.5	571.5
5.7.286	24 x 1.5	19.5	443.4	681.0
5.7.287	25 x 1.5	19.8	458.3	703.0
5.7.291	37 x 1.5	22.1	644.2	964.0
5.7.294	2 x 2.5	8.2	69.0	109.0
5.7.295	3 x 2.5	8.8	98.4	146.0
5.7.297	4 x 2.5	9.5	123.9	181.5
5.7.298	5 x 2.5	10.6	151.4	222.0
5.7.296	12 x 2.5	15.8	350.4	503.5

Other cross-sections and conductor counts available on request.

TECHNOTRONIK LiYCY-Nr**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS****APPLICATIONS**

TECHNOTRONIK LiYCY-Nr is an overall shielded control 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.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYCEY-Nr – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYCY-Nr – specially designed intrinsically safe cable.

TECHNOTRONIK LiYCY-Nr

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

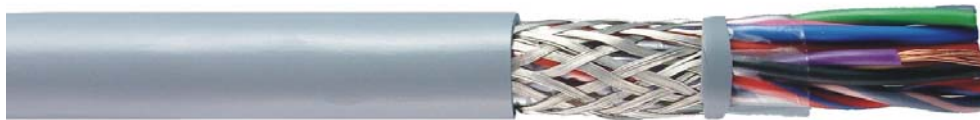
Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.0.001	2 x 0.5	5.2	20.1	39.5
5.0.002	3 x 0.5	5.6	25.9	51.5
5.0.003	4 x 0.5	6.1	31.4	60.0
5.0.004	5 x 0.5	6.6	37.8	71.0
5.0.005	6 x 0.5	7.1	44.0	82.0
5.0.006	7 x 0.5	7.1	48.7	89.0
5.0.007	8 x 0.5	8.0	57.9	107.5
5.0.008	10 x 0.5	9.1	78.7	137.5
5.0.009	12 x 0.5	9.3	89.0	154.5
5.0.010	14 x 0.5	10.0	101.3	178.4
5.0.011	16 x 0.5	10.5	111.9	196.0
5.0.012	18 x 0.5	11.0	123.1	215.5
5.0.013	20 x 0.5	11.7	135.0	235.5
5.0.014	21 x 0.5	12.1	140.5	250.5
5.0.015	27 x 0.5	13.4	174.3	306.0
5.0.016	30 x 0.5	13.8	190.1	332.0
5.0.017	36 x 0.5	15.5	241.5	418.5
5.0.018	40 x 0.5	16.2	264.0	455.5
5.0.019	61 x 0.5	19.6	397.5	669.0
5.0.026	2 x 0.75	5.9	26.4	50.5
5.0.027	3 x 0.75	6.2	34.0	62.5
5.0.028	4 x 0.75	6.7	42.7	76.0
5.0.029	5 x 0.75	7.3	51.6	90.0
5.0.030	6 x 0.75	8.1	60.2	108.5
5.0.031	7 x 0.75	8.1	67.3	118.5
5.0.032	8 x 0.75	8.9	76.6	133.5
5.0.033	10 x 0.75	10.5	106.4	179.0
5.0.034	12 x 0.75	10.8	121.7	202.5
5.0.035	16 x 0.75	12.1	154.5	258.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.0.036	20 x 0.75	13.3	188.0	310.0
5.0.037	24 x 0.75	15.3	240.3	395.0
5.0.038	27 x 0.75	15.6	263.1	429.5
5.0.039	30 x 0.75	16.1	287.1	467.0
5.0.040	44 x 0.75	19.9	425.2	680.0
5.0.046	2 x 1.0	6.1	31.4	56.5
5.0.047	3 x 1.0	6.4	42.0	72.5
5.0.048	4 x 1.0	6.9	52.6	87.5
5.0.049	5 x 1.0	7.8	64.7	108.0
5.0.050	6 x 1.0	8.4	75.2	125.0
5.0.051	7 x 1.0	8.4	84.6	137.0
5.0.052	10 x 1.0	10.9	131.7	207.0
5.0.053	12 x 1.0	11.2	151.2	235.0
5.0.054	16 x 1.0	12.6	194.6	303.0
5.0.055	20 x 1.0	13.8	237.0	366.5
5.0.056	25 x 1.0	15.9	309.6	476.5
5.0.063	44 x 1.0	20.7	541.0	809.0
5.0.066	2 x 1.5	7.1	43.3	75.5
5.0.067	3 x 1.5	7.7	58.2	100.0
5.0.068	4 x 1.5	8.3	73.6	124.0
5.0.069	5 x 1.5	9.3	100.5	159.0
5.0.070	6 x 1.5	10.3	118.3	189.0
5.0.071	7 x 1.5	10.3	132.1	208.5
5.0.072	9 x 1.5	12.1	165.7	265.5
5.0.073	12 x 1.5	13.5	213.3	336.5
5.0.074	16 x 1.5	15.5	292.6	456.5
5.0.075	20 x 1.5	17.1	356.9	552.0
5.0.076	37 x 1.5	22.1	644.2	964.0

Other cross-sections and conductor counts are available upon request.

TECHNOTRONIK LiYCY-P

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK LiYCY-P is a multipair overall shielded control 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.

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

To achieve high analogue and digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

Cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYCEY-P – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiHCH-P and **TECHNOTRONIK LiHCEH-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 LiYCY-P – specially designed intrinsically safe cable.

TECHNOTRONIK LIYCY-P

CHARACTERISTICS

Conductor cross-section	mm ²	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	
Voltage test	V rms	1200	1200	1200	1500	1500	1500	
DC loop resistance at 20°C, maximum	Ω/km	276.0	158.0	114.0	78.0	52.0	39.0	
Mutual capacitance at 1 kHz, approximate	nF/km	90	100	100	100	110	120	

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.551	2 x 2 x 0.14	5.5	17.2	38.0
5.7.552	3 x 2 x 0.14	5.7	19.8	44.5
5.7.553	4 x 2 x 0.14	6.2	23.5	51.0
5.7.554	5 x 2 x 0.14	6.7	27.8	60.0
5.7.555	6 x 2 x 0.14	7.3	32.2	68.5
5.7.557	8 x 2 x 0.14	7.9	38.9	85.5
5.7.559	12 x 2 x 0.14	9.4	63.9	125.5
5.7.561	16 x 2 x 0.14	10.7	79.0	159.5
5.7.563	25 x 2 x 0.14	12.9	111.5	227.0
5.7.565	2 x 2 x 0.25	6.2	22.1	46.5
5.7.566	3 x 2 x 0.25	6.5	27.8	56.0
5.7.567	4 x 2 x 0.25	7.0	33.5	66.0
5.7.568	5 x 2 x 0.25	7.9	40.9	82.0
5.7.569	6 x 2 x 0.25	8.5	46.8	93.5
5.7.571	8 x 2 x 0.25	9.0	57.6	112.5
5.7.573	12 x 2 x 0.25	10.9	93.2	170.0
5.7.575	16 x 2 x 0.25	12.5	117.3	217.0
5.7.578	25 x 2 x 0.25	15.5	188.0	340.5
5.7.580	2 x 2 x 0.34	7.2	27.5	58.5
5.7.581	3 x 2 x 0.34	7.8	37.1	76.0
5.7.582	4 x 2 x 0.34	8.5	44.8	91.0
5.7.583	5 x 2 x 0.34	9.4	64.3	119.0
5.7.584	6 x 2 x 0.34	10.4	74.1	140.5
5.7.586	8 x 2 x 0.34	11.0	89.6	167.5
5.7.588	12 x 2 x 0.34	13.2	118.2	227.0
5.7.590	16 x 2 x 0.34	15.4	174.8	323.5
5.7.595	2 x 2 x 0.5	8.0	36.6	75.5
5.7.596	3 x 2 x 0.5	8.5	47.3	93.5

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.597	4 x 2 x 0.5	9.4	69.7	124.0
5.7.598	5 x 2 x 0.5	10.5	82.9	151.0
5.7.599	6 x 2 x 0.5	11.4	96.3	173.0
5.7.601	8 x 2 x 0.5	12.3	117.8	214.5
5.7.603	12 x 2 x 0.5	14.9	162.4	299.5
5.7.604	14 x 2 x 0.5	15.8	185.4	338.5
5.7.605	16 x 2 x 0.5	16.9	225.7	394.5
5.7.616	2 x 2 x 0.75	9.1	61.4	100.0
5.7.617	3 x 2 x 0.75	9.6	75.3	128.0
5.7.618	4 x 2 x 0.75	10.7	93.1	160.0
5.7.627	5 x 2 x 0.75	11.7	111.5	190.5
5.7.619	6 x 2 x 0.75	12.9	129.9	224.5
5.7.620	7 x 2 x 0.75	12.9	144.0	245.5
5.7.621	8 x 2 x 0.75	13.7	164.6	276.5
5.7.623	12 x 2 x 0.75	16.8	245.4	405.5
5.7.625	16 x 2 x 0.75	19.3	314.2	528.0
5.7.641	2 x 2 x 1.0	9.4	69.7	116.0
5.7.642	3 x 2 x 1.0	10.0	91.8	151.5
5.7.643	4 x 2 x 1.0	10.9	112.9	182.0
5.7.653	5 x 2 x 1.0	12.4	137.3	224.0
5.7.644	6 x 2 x 1.0	13.4	160.2	259.5
5.7.645	7 x 2 x 1.0	13.4	179.0	285.0
5.7.646	8 x 2 x 1.0	14.7	200.6	327.5
5.7.648	12 x 2 x 1.0	17.5	307.2	476.0
5.7.652	2 x 2 x 1.5	11.3	91.8	156.0
5.7.654	3 x 2 x 1.5	12.2	122.7	205.0
5.7.657	7 x 2 x 1.5	16.6	267.9	423.5

Other cross-sections and pair counts are available upon request.

TECHNOTRONIK LiYYCY**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS****APPLICATIONS**

TECHNOTRONIK LiYYCY is an overall shielded control 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.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is suitable for indoor installations connecting fixed and movable equipment.

Cable inner sheath offers enhanced protection against mechanical damage.

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 coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYYCY-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiYYC11Y – polyurethane sheathed cable of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

TECHNOTRONIK LiHHCH – 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.

TECHNOTRONIK LiYYCY – specially designed intrinsically safe cable.

TECHNOTRONIK LIYYCY

CHARACTERISTICS

Conductor cross-section	mm ²	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 U_0/U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	1 x 0,5	5,9	13,8	49,5		27 x 0,75	17,9	270,0	533,5
	2 x 0,5	7,8	27,9	88,5		36 x 0,75	19,8	365,3	678,5
	3 x 0,5	8,1	32,8	97,0		37 x 0,75	19,8	372,6	689,0
	4 x 0,5	8,5	40,7	112,0		1 x 1,0	6,3	19,6	59,0
	5 x 0,5	9,0	45,7	124,0		2 x 1,0	8,5	40,7	112,0
	6 x 0,5	9,6	57,4	144,0		3 x 1,0	8,8	50,5	126,5
	7 x 0,5	9,6	62,3	151,5		4 x 1,0	9,5	67,2	151,5
	8 x 0,5	10,6	71,2	171,5		5 x 1,0	10,1	77,0	170,5
	10 x 0,5	11,4	81,8	195,0		6 x 1,0	10,7	90,8	194,0
	12 x 0,5	11,6	94,7	215,5		7 x 1,0	10,7	100,5	207,0
	16 x 0,5	12,8	118,2	264,5		8 x 1,0	11,8	114,3	234,5
	24 x 0,5	15,6	181,3	385,0		10 x 1,0	13,0	137,8	280,0
	25 x 0,5	15,8	186,2	394,5		12 x 1,0	13,3	157,3	309,0
	27 x 0,5	15,9	196,3	411,0		16 x 1,0	14,5	200,4	377,5
	37 x 0,5	17,4	252,2	509,0		24 x 1,0	18,2	308,3	571,5
	40 x 0,5	18,9	295,4	588,0		25 x 1,0	18,6	344,6	615,0
	48 x 0,5	20,0	336,5	662,0		27 x 1,0	18,7	364,1	642,0
	1 x 0,75	6,2	16,9	55,0		1 x 1,5	6,8	25,3	71,0
	2 x 0,75	8,2	29,3	97,0		2 x 1,5	9,6	55,4	144,5
	3 x 0,75	8,6	43,1	116,0		3 x 1,5	10,0	71,1	166,5
	4 x 0,75	9,1	50,9	131,5		4 x 1,5	10,7	89,4	196,0
	5 x 0,75	9,8	63,8	153,5		5 x 1,5	11,4	104,8	224,0
	6 x 0,75	10,4	76,1	174,5		6 x 1,5	12,2	121,9	254,0
	7 x 0,75	10,4	83,4	185,0		7 x 1,5	12,2	136,2	274,0
	8 x 0,75	11,5	94,8	209,5		8 x 1,5	13,8	158,5	320,0
	10 x 0,75	12,6	110,1	245,5		10 x 1,5	15,6	207,3	405,5
	12 x 0,75	12,9	128,0	272,5		12 x 1,5	16,0	236,7	449,5
	16 x 0,75	14,0	161,3	329,5		16 x 1,5	17,8	301,0	566,0
	24 x 0,75	17,2	247,1	482,5		24 x 1,5	21,4	454,6	803,0
	25 x 0,75	17,4	254,9	495,5		25 x 1,5	21,7	470,4	827,0

Other cross-sections and conductor counts are available upon request.

TECHNOTRONIK LiYYCY-Nr**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS****APPLICATIONS**

TECHNOTRONIK LiYYCY-Nr is an overall shielded control 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.

To achieve high analogue or digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is suitable for indoor installations connecting fixed and movable equipment.

Cable inner sheath offers enhanced protection against mechanical damage.

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 coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYYCY-Nr-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiYYC11Y-Nr – polyurethane sheathed cable 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 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.

TECHNOTRONIK LiYYCY-Nr – specially designed intrinsically safe cable.

TECHNOTRONIK LiYYCY-Nr

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	5.9	13.8	49.5
	2 x 0.5	7.8	27.9	88.5
	3 x 0.5	8.1	32.8	97.0
	4 x 0.5	8.5	40.7	112.0
	5 x 0.5	9.0	45.7	124.0
	6 x 0.5	9.6	57.4	144.0
	7 x 0.5	9.6	62.3	151.5
	8 x 0.5	10.6	71.2	171.5
	10 x 0.5	11.4	81.8	195.0
	12 x 0.5	11.6	94.7	215.5
	16 x 0.5	12.8	118.2	264.5
	24 x 0.5	15.6	181.3	385.0
	25 x 0.5	15.8	186.2	394.5
	27 x 0.5	15.9	196.3	411.0
	37 x 0.5	17.4	252.2	509.0
	40 x 0.5	18.9	295.4	588.0
	48 x 0.5	20.0	336.5	662.0
	1 x 0.75	6.2	16.9	55.0
	2 x 0.75	8.2	29.3	97.0
	3 x 0.75	8.6	43.1	116.0
	4 x 0.75	9.1	50.9	131.5
	5 x 0.75	9.8	63.8	153.5
	6 x 0.75	10.4	76.1	174.5
	7 x 0.75	10.4	83.4	185.0
	8 x 0.75	11.5	94.8	209.5
	10 x 0.75	12.6	110.1	245.5
	12 x 0.75	12.9	128.0	272.5
	16 x 0.75	14.0	161.3	329.5
	24 x 0.75	17.2	247.1	482.5
	25 x 0.75	17.4	254.9	495.5
	27 x 0.75	17.9	270.0	533.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	36 x 0.75	19.8	365.3	678.5
	37 x 0.75	19.8	372.6	689.0
	40 x 0.75	20.9	404.3	743.0
	1 x 1.0	6.3	19.6	59.0
	2 x 1.0	8.5	40.7	112.0
	3 x 1.0	8.8	50.5	126.5
	4 x 1.0	9.5	67.2	151.5
	5 x 1.0	10.1	77.0	170.5
	6 x 1.0	10.7	90.8	194.0
	7 x 1.0	10.7	100.5	207.0
	8 x 1.0	11.8	114.3	234.5
	10 x 1.0	13.0	137.8	280.0
	12 x 1.0	13.3	157.3	309.0
	16 x 1.0	14.5	200.4	377.5
	24 x 1.0	18.2	308.3	571.5
	25 x 1.0	18.6	344.6	615.0
	27 x 1.0	18.7	364.1	642.0
	1 x 1.5	6.8	25.3	71.0
	2 x 1.5	9.6	55.4	144.5
	3 x 1.5	10.0	71.1	166.5
	4 x 1.5	10.7	89.4	196.0
	5 x 1.5	11.4	104.8	224.0
	6 x 1.5	12.2	121.9	254.0
	7 x 1.5	12.2	136.2	274.0
	8 x 1.5	13.8	158.5	320.0
	10 x 1.5	15.6	207.3	405.5
	12 x 1.5	16.0	236.7	449.5
	16 x 1.5	17.8	301.0	566.0
	24 x 1.5	21.4	454.6	803.0
	25 x 1.5	21.7	470.4	827.0

Other cross-sections and conductor counts are available upon request.

TECHNOTRONIK LiY(St)CY

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK LiY(St)CY is an overall double shielded control 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.

To achieve high analogue and digital data transmission performance the cable is protected against external electromagnetic interferences by an effective collective shield.

The cable 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 cable is 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 – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiY(St)C11Y – polyurethane sheathed cable 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 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.

TECHNOTRONIK LiY(St)CY – specially designed intrinsically safe cable.

TECHNOTRONIK LiY(St)CY

CHARACTERISTICS

Conductor cross-section	mm ²	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	130	130

Operating voltage U_o/U	300/300 V	Operating temperature range	for fixed equipment from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 0.5	5.5	16.0	38.4		3 x 1.0	6.5	38.2	69.1
	3 x 0.5	5.7	21.8	47.5		4 x 1.0	7.1	48.0	83.8
	4 x 0.5	6.2	27.0	56.8		5 x 1.0	7.9	59.5	104.0
	5 x 0.5	6.7	33.3	67.8		6 x 1.0	8.5	69.7	120.2
	6 x 0.5	7.2	38.5	77.2		7 x 1.0	8.5	79.4	133.3
	7 x 0.5	7.2	84.7	43.3		10 x 1.0	11.0	121.7	199.0
	8 x 0.5	8.4	100.8	49.7		12 x 1.0	11.3	141.2	226.3
	10 x 0.5	9.2	61.2	120.3		16 x 1.0	12.7	184.2	293.3
	12 x 0.5	9.4	70.9	136.1		21 x 1.0	14.8	234.5	381.4
	16 x 0.5	10.8	99.1	184.0		25 x 1.0	16.0	276.7	443.5
	19 x 0.5	11.3	116.6	211.4		27 x 1.0	16.1	296.4	470.4
	21 x 0.5	12.5	127.2	237.0		36 x 1.0	17.9	388.6	602.6
	27 x 0.5	13.5	159.6	289.6					
	36 x 0.5	15.4	207.4	381.2		2 x 1.5	7.2	37.7	71.0
	40 x 0.5	16.3	228.3	418.2		3 x 1.5	7.8	53.6	96.5
	48 x 0.5	17.4	269.8	486.6		4 x 1.5	8.5	68.0	119.0
						5 x 1.5	9.4	91.5	151.0
	2 x 0.75	6.0	21.8	46.8		6 x 1.5	10.4	105.9	178.4
	3 x 0.75	6.3	30.9	59.9		7 x 1.5	10.4	120.2	197.8
	4 x 0.75	6.8	38.2	72.6		8 x 1.5	12.0	138.4	232.3
	5 x 0.75	7.4	46.0	85.2		12 x 1.5	13.6	199.5	321.3
	6 x 0.75	8.2	54.6	102.7		16 x 1.5	15.4	260.6	422.8
	7 x 0.75	8.2	61.9	113.1		19 x 1.5	16.2	304.3	486.5
	8 x 0.75	9.5	78.6	137.8		21 x 1.5	17.6	336.2	536.7
	10 x 0.75	10.6	94.0	167.8		24 x 1.5	19.2	382.9	622.2
	12 x 0.75	10.9	111.9	193.1		25 x 1.5	19.5	397.1	643.2
	16 x 0.75	12.2	141.1	245.1		37 x 1.5	21.8	574.0	896.3
	19 x 0.75	12.8	167.1	283.0					
	24 x 0.75	15.2	207.6	361.7		2 x 2.5	8.2	58.4	100.2
	27 x 0.75	15.5	229.6	394.6		3 x 2.5	8.7	82.6	132.2
	34 x 0.75	16.8	284.7	479.0		4 x 2.5	9.8	115.4	178.8
	36 x 0.75	17.2	299.3	502.2		5 x 2.5	10.7	140.4	213.8
	2 x 1.0	6.2	27.1	53.1		12 x 2.5	15.7	318.1	473.4

Other cross-sections and conductor counts available on request.

TECHNOTRONIK LIYCY-CY-P

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK LIYCY-CY-P is a multipair, pair and overall shielded control 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.

Mutual influence between signals transmitted along the cable is substantially decreased by individual pair shielding.

To achieve high analogue and digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 and shielded by tinned copper wire braid of coverage bigger than 80%,
- shielded pairs sheathed with PVC to insulate one shield from another,
- shielded and sheathed pairs laid-up in layers,
- tinned copper wire braid shield of coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LIYCY-CY-P-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LIYCY-C11Y-P – polyurethane sheathed cable of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

TECHNOTRONIK LIHCH-CH-P – 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.

TECHNOTRONIK LIYCY-CY-P – specially designed intrinsically safe cable.

TECHNOTRONIK LIYCY-CY-P

CHARACTERISTICS

Conductor cross-section	mm ²	0.14	0.25	0.34	0.5	0.75	1.0
Operating voltage peak value	V	350	350	350	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	276.0	158.0	114.0	78.0	52.0	39.0
Mutual capacitance at 1 kHz, approximate	nF/km	90	100	100	100	110	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for moveable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.847	2 x 2 x 0.25	10.1	58	117
5.7.839	3 x 2 x 0.5	13.8	105	234
5.7.846	7 x 2 x 0.5	17.3	205	387
5.7.840	10 x 2 x 0.5	22.7	357	622
5.7.830	2 x 2 x 0.75	13.3	100	196
5.7.832	4 x 2 x 0.75	16.1	186	318
5.5.801	2 x 2 x 1.0	13.7	106	213
5.7.827	4 x 2 x 1.0	16.6	201	355

Other cross-sections and pair counts are available upon request.

TECHNOTRONIK LiYC-CY-P

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS

APPLICATIONS

TECHNOTRONIK LiYC-CY-P is a multipair, pair and overall shielded control 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.

Mutual influence between signals transmitted along the cable is substantially decreased by individual pair shielding.

To achieve high analogue and digital data transmission performance the cable is protected against external electromagnetic interferences by an overall shield.

The cable is designed to offer high flexibility and small outer diameter combined with tensile strength.

The cable 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 cable is 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 and shielded by tinned copper wire braid of coverage bigger than 80%,
- shielded pairs laid-up in layers,
- tinned copper wire braid of coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiYC-CY-P-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK LiYC-C11Y-P – polyurethane sheathed cable of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

TECHNOTRONIK LiHC-CH-P – 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.

TECHNOTRONIK LiYC-CY-P – specially designed intrinsically safe cable.

TECHNOTRONIK LiYC-CY-P

CHARACTERISTICS

Conductor cross-section	mm ²	0.14	0.25	0.34	0.5	0.75	1.0
Operating voltage peak value	V	350	350	350	500	500	500
Voltage test	V rms	1200	1200	1200	1500	1500	1500
DC loop resistance at 20°C, maximum	Ω/km	276.0	158.0	114.0	78.0	52.0	39.0
Mutual capacitance at 1 kHz, approximate	nF/km	90	100	100	100	110	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
5.7.834	5 x 2 x 0.25	9.9	97	151
5.7.842	2 x 2 x 0.5	9.5	71	108
5.7.803	3 x 2 x 0.5	10.3	90	150
5.7.843	4 x 2 x 0.5	10.8	117	171
5.G.801	7 x 2 x 0.5	13.0	205	289
5.7.844	8 x 2 x 0.5	14.6	226	326
5.7.845	12 x 2 x 0.5	17.8	324	456
5.7.838	2 x 2 x 1.0	11.0	106	153
5.G.835	5 x 2 x 1.0	14.4	208	303

Other cross-sections and pair counts are available upon request.

TECHNOTRONIK LiYwYw 105°C

CONTROL CABLES FOR INDUSTRIAL ELECTRONICS**APPLICATIONS**

LiYwYw 105°C cable is 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.

The cable can be applied at elevated operating temperatures up to 105°C due to insulation and sheath made of special heat resistant PVC.

The cable is designed to offer high flexibility and a small outer diameter combined with tensile strength.

The cable 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 cable is suitable for fixed and movable indoor 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,
- heat resistant PVC insulation - colours in accordance with DIN VDE 47100,
- insulated conductors laid-up into a cable core,
- heat resistant PVC cable sheath, grey RAL 7001, other colours also available.

TECHNOTRONIK LiYwYw 105°C

CHARACTERISTICS

Conductor cross-section	mm ²	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 conductor resistance at 20°C, maximum	Ω/km	138.0	90.0	57.0	39.0	26.0	19.5	13.3
Capacitance between conductors at 1 kHz, appr.	nF/km	90	100	110	100	110	120	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed installations	from -30 to +105°C
Inductance, approximate	0.7 mH/km	for movable installations	from -5 to +90°C
Impedance, approximate	80 Ω	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0.14	3.3	2.7	16.0
	3 x 0.14	3.5	4.1	18.5
	4 x 0.14	3.7	5.4	22.0
	5 x 0.14	4.0	6.8	25.5
	2 x 0.22	3.6	4.3	19.0
	3 x 0.22	3.8	6.4	22.5
	4 x 0.22	4.1	8.5	27.0
	5 x 0.22	4.4	10.6	32.0
	2 x 0.35	4.0	6.7	24.5
	3 x 0.35	4.2	10.1	29.5
	4 x 0.35	4.5	13.5	35.5
	5 x 0.35	4.9	16.8	42.0
	2 x 0.5	4.7	9.6	34.0
	3 x 0.5	4.9	14.4	41.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 0.5	5.6	19.2	52.5
	5 x 0.5	6.1	24.0	62.5
	2 x 0.75	5.2	14.4	43.5
	3 x 0.75	5.7	21.8	56.0
	4 x 0.75	6.2	28.8	69.0
	5 x 0.75	6.8	36.0	82.0
	2 x 1.0	5.6	19.2	53.0
	3 x 1.0	5.9	28.8	65.5
	4 x 1.0	6.4	38.4	81.0
	5 x 1.0	7.1	48.0	97.0
	2 x 1.5	6.6	29.0	74.0
	3 x 1.5	7.0	43.5	93.0
	4 x 1.5	7.9	58.0	119.0
	5 x 1.5	8.6	72.5	142.0

Other cross-sections and conductor counts available on request.

Li2Y2YCY 2 x 1.5 mm²

(equivalent SIEMENS L-2Y2YCY, part number V45551-F21-B5)

DATA TRANSMISSION CABLE**APPLICATIONS**

Li2Y2YCY 2 x 1.5 mm² 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 fixed and movable indoor and outdoor installations.

Cable outer sheath is oil-resistant.

CONSTRUCTION

- 1.5 mm² cross-section flexible multiwire conductors, stranded of annealed bare copper wires (84 x 0.15 mm),
- polyethylene (PE) insulation - neutral and brown,
- two insulated conductors twisted into a pair which is a cable core,
- the cable core wrapped in a polyester tape,
- polyethylene (PE) inner cable sheath,
- tinned copper wire braid of coverage 80% approximately,
- freeze resistant PVC cable sheath coloured according to customer's requirement.

Li2Y2YCY 2 x 1.5 mm²

(equivalent SIEMENS L-2Y2YCY, part number V45551-F21-B5)

CHARACTERISTICS

Operating voltage	150 V	Operating temperature range	from -40 to +70°C
Capacitance between conductors at 1 kHz	≤ 52 nF/km	Minimum bending radius	10 x cable diameter
DC loop resistance at 20°C, maximum	26 Ω/km	Cable combustibility	flame retardant
Insulation resistance, minimum	10 GΩ·km	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
Inductance, approximate	0.75 mH/km		
Voltage test	1000 V rms		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 1.5	12.5	90.9	198

Li2Y(St)-CY 1 x 2 x 0.22 mm² 120 Ω
(equivalent BELDEN 9841)**DATA TRANSMISSION CABLE****APPLICATIONS**

Li2Y(St)-CY 1 x 2 x 0.22 mm² 120 Ω cable is intended for industrial computer systems with RS-485 interfaces.

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 fixed and movable indoor installations.

CONSTRUCTION

- 0,22 mm² cross-section flexible multiwire conductors, stranded of annealed tin-plated copper wires (7 x 0.20 mm),
- polyethylene (PE) insulation - black and white,
- insulated conductors twisted into a pair,
- collective shield, incorporating an aluminum-polyester tape and a stranded annealed tinned copper drain wire under a tinned copper wire braid,
- PVC cable sheath coloured according to customer's requirement.

Li2Y(St)-CY 1 x 2 x 0.22 mm² 120 Ω
(equivalent BELDEN 9841)**CHARACTERISTICS**

Characteristic impedance	120 ± 15 Ω	Operating temperature range for fixed installations	from -30 to +70 °C
Capacitance between conductors at 1 kHz	42 ± 3 nF/km	for movable installations	from -5 to +50 °C
Insulation resistance, minimum	500 MΩ·km	Minimum bending radius	15 x cable diameter
DC loop resistance at 20°C, maximum	184 Ω/km	Cable combustibility	flame retardant
Operating voltage	150 V	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
Voltage test	1500 V rms	Reference standards	TIA/EIA-485-A-1998 ISO 11801

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 2 x 0.22	6.8	34	57

Li2YCYv-P n x 2 x 0.5 mm² 100 Ω

DATA TRANSMISSION NETWORK CABLE**APPLICATIONS**

Li2YCY-P n x 2 x 0.5 mm² 100 Ω cable is intended for industrial computer systems.

Low capacitance between conductors is a distinctive feature and the cable is applied in systems with RS-232, RS-422 and RS-485 interfaces.

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, also in ducts and for direct earth burial.

CONSTRUCTION

- 0.5 mm² cross-section flexible multiwire conductors, stranded of annealed tin-plated copper wires (7 x 0.30 mm),
- polyethylene (PE) insulation - colours in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- pairs laid up into a cable core,
- cable core wrapped in a polyester tape,
- overall tinned copper wire braid of coverage bigger than 85%,
- black freeze resistant PVC cable sheath, other colours also available.

Li2YCYv-P n x 2 x 0.5 mm² 100 Ω**CHARACTERISTICS**

Characteristic impedance	100 ± 15 Ω	Attenuation loss, maximum	
Capacitance between conductors at 1 kHz	50 ± 3 nF/km	at 0.1 MHz	0.6 dB/100m
Insulation resistance, minimum	500 MΩ·km	at 1.0 MHz	1.8 dB/100m
DC loop resistance at 20°C, maximum	78 Ω/km	Operating temperature range	from -40 to +80 °C
Operating voltage	300 V	Minimum bending radius	15 x cable diameter
Voltage test	1500 V rms	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	ISO/IEC 1180

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	9.8	51	115
	3 x 2 x 0.5	10.3	61	131

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 2 x 0.5	11.1	74	148
	10 x 2 x 0.5	15.4	170	297

Li2YC11Yv-P 1 x 2 x 0.5 + 1 x 2 x 1.5 mm²**DATA TRANSMISSION NETWORK CABLE**

**APPLICATIONS**

Li2YC11Yv-P 1 x 2 x 0.5 + 1 x 2 x 1.5 mm² hybrid cable is intended for control, monitoring, instrumentation and computerized systems, for data transmission and power supply .

Low capacitance between conductors is a distinctive feature and the cable is applied in systems equipped with RS-232, RS-422 and RS-485 interfaces.

For proper transfer of digital and analogue signals the cable is protected against external electromagnetic interferences by means of a specially designed and highly effective collective shield.

The cable is suitable for indoor and outdoor installations, in ducts and for direct earth burial, also in wet surroundings.

CONSTRUCTION**0.5 mm² conductors:**

- 0.5 mm² cross-section flexible multiwire conductors, stranded of annealed copper wires (7 x 0.30 mm),
- polyethylene (HDPE) insulation, coloured white and brown,
- insulated conductors twisted into a pair,

0.5 mm² conductors:

- 1.5 mm² cross-section flexible multiwire conductors, stranded of annealed copper wires (7 x 0.52 mm),
- polyethylene (HDPE) insulation, coloured green and yellow,
- insulated conductors twisted into a pair,

cable

- pairs laid up into a cable core,
- cable core wrapped in a polyester tape,
- overall tinned copper wire braid of coverage bigger than 85%,
- black polyurethane (PUR) cable sheath, other colours also available.

Li2YC11Yv-P 1 x 2 x 0.5 + 1 x 2 x 1.5 mm²**CHARACTERISTICS**

Conductor cross-section	mm ²	0.5	1.5
DC loop resistance at 20°C, maximum	Ω/km	78.0	26.6
Characteristic impedance	Ω	100 ± 20	—
Capacitance between conductors at 1 kHz, approximate	nF/km	50	65

Insulation resistance, minimum	5 GΩ·km	Operating temperature range	from -40 to +80 °C
Operating voltage	150 V	Minimum bending radius	15 x cable diameter
Voltage test	1500 V rms	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	ISO/IEC 11801

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 2 x 0.5 + 1 x 2 x 1.5	12.1	74	163

LiO2YS(St)-CY-O 2 x 2 x 0.22 mm² 100 Ω
(equivalent BELDEN 8102)**DATA TRANSMISSION CABLE****APPLICATIONS**

LiO2YS(St)-CY-O 2 x 2 x 0.22 mm² 100 Ω cable is intended for industrial computer systems with RS-232 and RS-422 interfaces.

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 designed for frequent contact with petroleum products, as in petrol stations and stores, where engine fuels and lubricants are pumped or handled.

The cable is suitable for fixed and movable installations.

CONSTRUCTION

- 0.22 mm² cross-section flexible multiwire conductors, stranded of annealed tin-plated copper wires (7 x 0.20 mm),
- foam-skin polyethylene insulation: white + blue and red + orange,
- 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.

LiO2YS(St)-CY-O 2 x 2 x 0.22 mm² 100 Ω
(equivalent BELDEN 8102)**CHARACTERISTICS**

Characteristic impedance	100 ± 15 Ω	Attenuation loss, maximum:	
Capacitance between conductors at 1 kHz	41 ± 3 nF/km	at 1 MHz	2.5 dB/100m
Insulation resistance, minimum	200 MΩ·km	at 10 MHz	6.5 dB/100m
DC loop resistance at 20°C, maximum	184 Ω/km	at 50 MHz	12.5 dB/100m
Shield resistance at 20°C, maximum	9.7 Ω/km	Operating temperature range	from -30 to +80°C
Operating voltage	150 V	Minimum bending radius	15 x cable diameter
Voltage test	500 V rms	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Oil resistance	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.22	7.3	8.5	58.7

TECHNOTRONIK LiY(St)-CY n x 2 x 0.22 mm²

CONTROL CABLES FOR INDUSTRIAL ELECTRONICS**APPLICATIONS**

TECHNOTRONIK LiY(St)-CY is a multipair, pair and overall shielded control cable 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.

For proper transmission of digital and analogue signals the cable circuits are protected by an overall shield against interference produced by external electromagnetic fields.

The cable is suitable for fixed and movable indoor installations.

Cable outer sheath is oil-resistant.

CONSTRUCTION

- flexible multiwire conductors, stranded of bare annealed copper wires (7 x 0.20 mm),
- PVC insulation - colours in accordance with DIN VDE 47100,
- insulated conductors twisted into pairs,
- shielded pairs laid-up into a cable core,
- overall tinned copper wire braid of coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOTRONIK LiY(St)-CY-O – cable 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 PN-EN 60811-2-1 standard.

TECHNOTRONIK LiY(St)-C11Y – polyurethane sheathed cable of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

TECHNOTRONIK LiY(St)-CY n x 2 x 0.22 mm²**CHARACTERISTICS**

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Voltage test	1,2 kV rms	for fixed installations	from -30 to +80°C
DC loop resistance at 20°C, maximum	184 Ω/km	for movable installations	from -5 to +70°C
Capacitance between conductors at 1 kHz. appr.	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 50265-2-1 and IEC 60332-1
Impedance, approximate	80 Ω	Reference standards	DIN VDE 0812 and DIN VDE 0814

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.22	6.1	21.0	43.0
	4 x 2 x 0.22	7.0	33.0	64.0
	5 x 2 x 0.22	7.8	38.0	77.0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 2 x 0.22	8.4	48.0	96.0
	10 x 2 x 0.22	10.4	78.0	145.0
	12 x 2 x 0.22	10.9	88.0	163.0

Other cross-sections and pair counts available on request.

EGSF, EGFA

INSTRUMENT CABLES



APPLICATIONS

EGSF and **EGFA** instrument 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 indoor and outdoor installations.

Sheathing PVC is UV radiation and weather resistant, self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cables are oil-resistant and offer enhanced resistance to aliphatic hydrocarbons.

CONSTRUCTION

- bare annealed copper wire conductors,
 - 05** – 0.50 mm² (1 x 0.8 mm),
 - 09** – 0.88 mm² (7 x 0.4 mm),
- heat resistant PVC insulation,
- insulated conductors stranded into
 - pairs IP** – white and red insulation and pair number printed on it,
 - triads IT** – white, red and blue insulation and triad number printed on it,
 - quads IQ** – white, red, blue and yellow insulation for identification,
- pairs, triads or quads laid-up in layers,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal tape and a stranded annealed tinned copper drain wire of cross-section 0.22 mm² (7 x 0.20 mm),
- blue PVC cable sheath, RAL 5012, other colours also available,
- steel tape armour for **EGFA** cable,
- blue PVC outer covering, RAL 5012, other colours also available.

EGSF, EGFA

CHARACTERISTICS

DC loop resistance at 20°C, maximum	
0.50 mm ² conductor	75.0 Ω/km
0.88 mm ² conductor	42.8 Ω/km
Resistance unbalance, maximum	
0.50 mm ² conductor	1.12 Ω/km
0.88 mm ² conductor	1.07 Ω/km
Operating voltage U ₀ /U	300/300 V
Voltage test	
conductor/conductor	1.5 kV rms
conductor/shield	1.0 kV rms
Insulation resistance, minimum	500 MΩ·km
Mutual capacitance, maximum (for one pair or triad the capacitance can be bigger by 30%)	
0.50 mm ² conductors	145 nF/km
0.88 mm ² conductors	160 nF/km

Operating temperature range	
for operation	from -30 to +90°C
for installation	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 60811-2-1
Cable combustibility	flame retardant
Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
Reference standards	NF M 87-202

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs/triads/quads (x 2/3/4) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Cable type	Number of pairs/triads/quads (x 2/3/4) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
03 IP 05 EGSF	3 x 2 x 0.5	8.4	31.0	84.0	03 IP 05 EGFA	3 x 2 x 0.5	11.2	31.0	191.0
07 IP 05 EGSF	7 x 2 x 0.5	10.9	70.0	157.0	07 IP 05 EGFA	7 x 2 x 0.5	13.9	70.0	300.0
12 IP 05 EGSF	12 x 2 x 0.5	13.9	118.0	255.0	12 IP 05 EGFA	12 x 2 x 0.5	17.1	118.0	441.0
19 IP 05 EGSF	19 x 2 x 0.5	17.1	185.0	388.0	19 IP 05 EGFA	19 x 2 x 0.5	20.5	185.0	624.0
27 IP 05 EGSF	27 x 2 x 0.5	19.0	262.0	510.0	27 IP 05 EGFA	27 x 2 x 0.5	24.0	262.0	810.0
07 IT 05 EGSF	7 x 3 x 0.5	12.4	103.0	219.0	07 IT 05 EGFA	7 x 3 x 0.5	15.6	103.0	387.0
12 IT 05 EGSF	12 x 3 x 0.5	15.9	175.0	366.0	12 IT 05 EGFA	12 x 3 x 0.5	19.3	175.0	586.0
01 IP 09 EGSF	1 x 2 x 0.88	6.6	20.0	60.0	01 IP 09 EGFA	1 x 2 x 0.88	9.4	20.0	146.0
03 IP 09 EGSF	3 x 2 x 0.88	10.3	53.0	126.0	03 IP 09 EGFA	3 x 2 x 0.88	13.3	53.0	261.0
07 IP 09 EGSF	7 x 2 x 0.88	13.7	121.0	252.0	07 IP 09 EGFA	7 x 2 x 0.88	16.9	121.0	436.0
12 IP 09 EGSF	12 x 2 x 0.88	17.5	205.0	412.0	12 IP 09 EGFA	12 x 2 x 0.88	20.9	205.0	653.0
19 IP 09 EGSF	19 x 2 x 0.88	21.3	324.0	621.0	19 IP 09 EGFA	19 x 2 x 0.88	25.1	324.0	936.0
27 IP 09 EGSF	27 x 2 x 0.88	25.1	459.0	864.0	27 IP 09 EGFA	27 x 2 x 0.88	29.1	459.0	1245.0
01 IT 09 EGSF	1 x 3 x 0.88	7.0	28.0	70.0	01 IT 09 EGFA	1 x 3 x 0.88	9.8	28.0	161.0
07 IT 09 EGSF	7 x 3 x 0.88	15.8	180.0	363.0	07 IT 09 EGFA	7 x 3 x 0.88	19.0	180.0	573.0
12 IT 09 EGSF	12 x 3 x 0.88	20.0	307.0	595.0	12 IT 09 EGFA	12 x 3 x 0.88	23.4	307.0	869.0
01 IQ 09 EGSF	1 x 4 x 0.88	7.5	36.0	85.0	01 IQ 09 EGFA	1 x 4 x 0.88	10.3	36.0	182.0

Other cross-sections and pair, triad or quad counts are available upon request.

EISF, EIFA**INSTRUMENT CABLES****APPLICATIONS**

EISF and **EIFA** instrument 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 indoor and outdoor installations.

Sheathing PVC is UV radiation and weather resistant, self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cables are oil-resistant and offer enhanced resistance to aliphatic hydrocarbons.

CONSTRUCTION

- bare annealed copper wire conductors,
 - 05** – 0.50 mm² (1 x 0.8 mm),
 - 09** – 0.88 mm² (7 x 0.4 mm),
- heat resistant PVC insulation,
- insulated conductors stranded into
 - pairs IP** – white and red insulation and pair number printed on it,
 - triads IT** – white, red and blue insulation and triad number printed on it,
- pair/triad electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire of cross-section 0.22 mm² (7 x 0.20 mm),
- PVC sheathed 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 a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wires of cross-section 0.22 mm² (7 x 0.20 mm) - number of drain wires is 1 to 3 depending on the cable core diameter,
- blue PVC cable sheath, RAL 5012, other colours also available,
- steel tape armour for **EIFA** cable,
- blue PVC outer covering, RAL 5012, other colours also available.

EISF, EIFA

CHARACTERISTICS

DC loop resistance at 20°C, maximum	
0.50 mm ² conductor	75.0 Ω/km
0.88 mm ² conductor	42.8 Ω/km
Resistance unbalance, maximum	
0.50 mm ² conductor	1.12 Ω/km
0.88 mm ² conductor	1.07 Ω/km
Operating voltage U _o /U	300/300 V
Voltage test	
conductor/conductor	1.5 kV rms
conductor/shield	1.0 kV rms
Insulation resistance, minimum	500 MΩ·km
Mutual capacitance, maximum	
0.50 mm ² conductors	210 nF/km
0.88 mm ² conductors	230 nF/km

Operating temperature range	
during operation	from -30 to +90°C
during installation	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 60811-2-1
Cable combustibility	flame retardant
Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
Reference standards	NF M 87-202

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs/triads (x 2/3) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
03 IP 05 EISF	3 x 2 x 0.5	12.2	38.0	126.0
07 IP 05 EISF	7 x 2 x 0.5	17.6	87.0	339.0
12 IP 05 EISF	12 x 2 x 0.5	23.6	145.0	558.0
19 IP 05 EISF	19 x 2 x 0.5	29.4	229.0	867.0
07 IT 05 EISF	7 x 3 x 0.5	18.2	120.0	399.0
12 IT 05 EISF	12 x 3 x 0.5	24.7	205.0	673.0
03 IP 09 EISF	3 x 2 x 0.88	15.5	60.0	223.0
07 IP 09 EISF	7 x 2 x 0.88	20.8	138.0	470.0
12 IP 09 EISF	12 x 2 x 0.88	28.0	235.0	778.0
19 IP 09 EISF	19 x 2 x 0.88	34.8	368.0	1207.0
07 IT 09 EISF	7 x 3 x 0.88	21.7	197.0	574.0
12 IT 09 EISF	12 x 3 x 0.88	29.4	336.0	970.0

Cable type	Number of pairs/triads (x 2/3) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
03 IP 05 EIFA	3 x 2 x 0.5	16.4	38.0	348.0
07 IP 05 EIFA	7 x 2 x 0.5	21.0	87.0	581.0
12 IP 05 EIFA	12 x 2 x 0.5	27.2	145.0	891.0
19 IP 05 EIFA	19 x 2 x 0.5	33.0	229.0	1277.0
07 IT 05 EIFA	7 x 3 x 0.5	21.6	120.0	649.0
12 IT 05 EIFA	12 x 3 x 0.5	28.1	205.0	1006.0
03 IP 09 EIFA	3 x 2 x 0.88	18.7	60.0	440.0
07 IP 09 EIFA	7 x 2 x 0.88	24.2	138.0	754.0
12 IP 09 EIFA	12 x 2 x 0.88	31.8	235.0	1184.0
19 IP 09 EIFA	19 x 2 x 0.88	38.8	368.0	1727.0
07 IT 09 EIFA	7 x 3 x 0.88	25.3	197.0	882.0
12 IT 09 EIFA	12 x 3 x 0.88	29.4	336.0	1397.0

Other cross-sections and pair or triad counts are available upon request.

RD-Y(St)Y n x 2 x 0.5 mm² Bd**UNIT TYPE CONTROL CABLES FOR POWER STATIONS****APPLICATIONS**

RD-Y(St)Y n x 2 x 0,5 mm² Bd is a unit type control cable 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 cable against interference by external electric fields.

The cable is 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 annealed copper wires, cross-section 0.5 mm² (7 x 0.3 mm),
- PVC insulation,
- insulated conductors twisted into pairs, star-quad assembly in 2 x 2 x 0.5 mm² type cable,
- identification colour code:

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 of cross-section 0.5 mm² (7 x 0,3 mm),
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

RD-Y(St)Yv n x 2 x 0,5 mm² Bd – cable with enhanced black PVC sheath, suitable for direct burial.

RD-Y(St)YY n x 2 x 0,5 mm² Bd – cable with double black PVC sheath, suitable for direct burial.

RD-H(St)H n x 2 x 0,5 mm² Bd – 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.

RD-Y(St)Y n x 2 x 0.5 mm² Bd**CHARACTERISTICS**

Operating voltage peak value	600 V
Voltage test (50 Hz)	
conductor/conductor	2 kV rms
conductor/screen	2 kV rms
DC loop resistance at 20°C, maximum	73.6 Ω/km
Insulation resistance, minimum	100 MΩ·km
Current-carrying capacity limit	6 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
Operating temperature range	
for fixed equipment	from - 30 to + 80°C
for movable equipment	from - 5 to + 70°C
Minimal bending radius	10 x cable diameter
Cable combustibility	flame retardant
Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
Reference standards	DIN VDE 0815

*) this value can be higher by 20 % in four or less pair cable

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.7.002	2 x 2 x 0.5	6.4	25	64
7.7.004	4 x 2 x 0.5	8.8	45	100
7.7.008	8 x 2 x 0.5	11.4	85	180
7.7.012	12 x 2 x 0.5	13.4	125	250
7.7.016	16 x 2 x 0.5	15.6	165	310
7.7.024	24 x 2 x 0.5	19.0	245	450
7.7.032	32 x 2 x 0.5	21.0	325	560
7.7.048	48 x 2 x 0.5	34.0	485	810

Other cross-sections and pair counts are available upon request.

RE-2Y(St)Yv PIMF

DATA TRANSMISSION CABLE



APPLICATIONS

RE-2Y(St)Yv PIMF is a multipair, pair and overall shielded cable 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 cable is protected by an overall electrostatic shield against external electric field interferences.

The cable is 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 and DIN VDE 0295,
- 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,
- electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded pairs and an orange communication conductor laid-up into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a 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 – cable 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 PN-EN 60811-2-1 standard.

RE-2Y(St)Yv PIMF

CHARACTERISTICS

Conductor cross-section	mm ²	0.5	1.3
DC loop resistance at 20°C, maximum	Ω/km	78.0	28.4
Capacitance between conductors at 1 kHz, appr.	nF/km	75	100

Operating voltage peak value	300 V	Operating temperature range	
Voltage test	2.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	5 GΩ·km	for movable installations	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0815 and DIN VDE 0816

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	11.0	38.0	137
	4 x 2 x 0.5	11.7	67.0	183
	6 x 2 x 0.5	13.2	96.0	231
	8 x 2 x 0.5	14.0	125.0	264
	10 x 2 x 0.5	15.4	154.0	280
	12 x 2 x 0.5	16.5	182.0	377
	16 x 2 x 0.5	18.7	240.0	486
	20 x 2 x 0.5	20.0	298.0	561
	24 x 2 x 0.5	22.2	355.0	684

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 1.3	12.8	69.0	190
	4 x 2 x 1.3	15.4	129.0	296
	6 x 2 x 1.3	17.1	188.0	374
	8 x 2 x 1.3	18.4	248.0	464
	10 x 2 x 1.3	20.8	307.0	563
	12 x 2 x 1.3	22.5	367.0	651
	16 x 2 x 1.3	25.0	486.0	832
	20 x 2 x 1.3	26.9	605.0	1003
	24 x 2 x 1.3	30.9	724.0	1152

Other cross-sections and pair counts available on request.

RE-2Y(St)Yv

DATA TRANSMISSION CABLE



APPLICATIONS

RE-2Y(St)Yv is a multipair, overall shielded cable 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 cable circuits are protected by an overall electrostatic shield against external electric field interferences.

The cable is 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 and DIN VDE 0295,
- 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 a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a 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 – cable 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 PN-EN 60811-2-1 standard.

RE-2Y(St)Yv

CHARACTERISTICS

Conductor cross-section	mm ²	0.5	0.75	1.3
DC loop resistance at 20°C, maximum	Ω/km	78.0	52.0	28.4
Capacitance between conductors at 1 kHz, appr.	nF/km	60	65	75

Operating voltage peak value	300 V	Operating temperature range	
Voltage test	2.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	5 GΩ·km	for movable installations	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0815 and DIN VDE 0816

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 2 x 0.5	6.8	14.5	61
	2 x 2 x 0.5	9.7	29.0	102
	4 x 2 x 0.5	10.7	48.0	132
	6 x 2 x 0.5	11.8	67.0	202
	8 x 2 x 0.5	12.8	86.0	200
	10 x 2 x 0.5	13.5	106.0	243
	12 x 2 x 0.5	14.5	125.0	252
	26 x 2 x 0.5	16.1	163.0	335
	20 x 2 x 0.5	17.4	202.0	365
	24 x 2 x 0.5	19.0	240.0	441
	1 x 2 x 0.75	7.3	20.0	70
	2 x 2 x 0.75	10.4	41.0	115
	4 x 2 x 0.75	11.6	70.0	159
	6 x 2 x 0.75	13.3	98.0	207
	8 x 2 x 0.75	14.0	127.0	247

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	10 x 2 x 0.75	14.8	156.0	300
	12 x 2 x 0.75	16.1	185.0	332
	16 x 2 x 0.75	17.9	242.0	416
	20 x 2 x 0.75	19.5	300.0	497
	24 x 2 x 0.75	20.1	358.0	571
	1 x 2 x 1.3	8.0	30.0	89
	2 x 2 x 1.3	11.7	67.0	151
	4 x 2 x 1.3	13.2	117.0	223
	6 x 2 x 1.3	14.5	167.0	294
	8 x 2 x 1.3	15.4	217.0	361
	10 x 2 x 1.3	16.8	270.0	438
	12 x 2 x 1.3	18.7	317.0	507
	16 x 2 x 1.3	20.8	417.0	635
	20 x 2 x 1.3	22.5	517.0	725
	24 x 2 x 1.3	23.7	616.0	880

Other cross-sections and pair counts available on request.

BUS O2YS(St)CY 1 x 2 x 0.64/2.6 mm

PROFIBUS DP SYMMETRICAL CABLE**APPLICATIONS**

BUS O2YS(St)CY 1 x 2 x 0.64/2.6 mm cable is 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.

The cable is suitable for indoor installations.

Cable outer sheath is oil-resistant.

CONSTRUCTION

- annealed copper single wire conductors of diameter 0.64 mm (22 AWG),
- foam-skin polyethylene insulation - 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 1 x 2 x 0.64/2.6 mm – cable of enhanced and oil resistant PVC sheath, suitable for outdoor installations and direct earth burial.

BUS O2YS(St)CY2Y 1 x 2 x 0.64/2.6 mm – cable with additional polyethylene (PE) sheath, suitable for outdoor installations and direct earth burial.

BUS O2YS(St)CY 1 x 2 x 0.64/2.6 mm**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	115 Ω/km
Insulation resistance, minimum	500 MΩ·km	DC shield resistance at 20°C, maximum	9.7 Ω/km
Operating voltage	100 V	Operating temperature range	from -30 to +70 °C
Voltage test	500 V rms	Minimum bending radius	10 x cable diameter
Attenuation loss, maximum at 38.4 MHz	3 dB/km	Cable combustibility	flame retardant
Attenuation loss, maximum at 1 MHz	1.2 dB/100m	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
at 4 MHz	2.2 dB/100m	Reference standards	DIN 19245 T3 and EN 50170
at 10 MHz	3.2 dB/100m		
at 16 MHz	4.2 dB/100m		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
O2YS(St)CY	1 x 2 x 0.64	8.0	25	66.5
O2YS(St)CYv	1 x 2 x 0.64	10	25	105

BUS O2YS(St)CY 1 x 2 x 1.0/2.6 mm

PROFIBUS PA SYMMETRICAL CABLE**APPLICATIONS**

BUS O2YS(St)CY 1 x 2 x 1.0/2.6 mm cable is 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 sheath is oil-resistant.

The cable is suitable for indoor installations.

CONSTRUCTION

- annealed copper single wire conductors of diameter 1.0 mm,
- foam-skin polyethylene insulation - blue and orange,
- insulated conductors twisted into a pair,
- collective shield incorporating an aluminium-polyester tape under a tinned copper wire braid,
- PVC cable sheath, blue RAL 5015, other colours also available.

AVAILABLE UPON REQUEST

BUS O2YS(St)CYv 1 x 2 x 1.0/2.6 mm – cable of enhanced and oil resistant PVC sheath, suitable for outdoor installations and direct earth burial.

BUS O2YS(St)CY2Y 1 x 2 x 1.0/2.6 mm – cable with additional polyethylene (PE) sheath, suitable for outdoor installations and direct earth burial.

BUS O2YS(St)CY 1 x 2 x 1.0/2.6 mm**CHARACTERISTICS**

Characteristic impedance	100 ± 20 Ω	Transfer impedance at 30 MHz, maximum	50 mΩ/m
Mutual capacitance at 1 kHz, approximate.	50 nF/km	DC loop resistance at 20°C, maximum	44 Ω/km
Insulation resistance, minimum	150 MΩ·km	DC shield resistance at 20°C, maximum	9.5 Ω/km
Operating voltage	100 V	Operating temperature range	from -30 to +70 °C
Voltage test	500 V rms	Minimum bending radius	10 x cable diameter
Attenuation loss, maximum at 38.4 MHz	3 dB/km	Cable combustibility	flame retardant
Attenuation loss, maximum at 1 MHz	1.2 dB/100m	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
at 4 MHz	2.2 dB/100m	Oil resistance	PN-EN 60811-2-1
at 10 MHz	3.2 dB/100m	Reference standards	IEC 61158-2
at 16 MHz	4.2 dB/100m		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
O2YS(St)CY	1 x 2 x 1.0	8.0	31	66.5
O2YS(St)CYv	1 x 2 x 1.0	9.6	31	108

S-2Y(St)CY 8 x 2 x 0.6c mm 120 Ω

DATA TRANSMISSION CABLE**APPLICATIONS**

S-2Y(St)CY 8 x 2 x 0.6c mm 120 Ω cable 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 in industrial electronics applications.

The cable is designed for data transmission in ISDN, PCM and other 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 installations.

CONSTRUCTION

- diameter 0.6 mm single wire circular conductors made of annealed tin-plated copper,
- polyethylene (PE) insulation - colours in accordance with PN-92/T-90321 standard,
- insulated conductors twisted into pairs,
- pairs laid up into a cable core,
- collective shield, incorporating an aluminium-polyester tape and 0.6 mm annealed tinned copper drain wire under a tinned copper wire braid shield of coverage bigger than 80%,
- grey PVC cable sheath, other colours also available.

S-2Y(St)CY 8 x 2 x 0.6c mm 120 Ω**CHARACTERISTICS**

Characteristic impedance	120 ± 15 Ω	Attenuation loss, maximum:	
Capacitance between conductors at 1 kHz	45 ± 5 nF/km	at 1 MHz	1.3 dB/100m
Insulation resistance, minimum	10 GΩ·km	at 2 MHz	1.7 dB/100m
DC loop resistance at 20°C, maximum	130 Ω/km	Operating temperature range	from -30 to +80 °C
Operating voltage	150 V	Minimum bending radius	15 x cable diameter
Voltage test	1500 V rms	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-4

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
	8 x 2 x 0.6c	10.1	82.6	140

J-2Y(St)(St)Y 120 Ω

DATA TRANSMISSION CABLE



APPLICATIONS

J-2Y(St)(St)Y 120 Ω is a multipair, pair and overall shielded cable 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.

The cable is 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.

For proper transmission of digital and analogue signals, the cable is protected against external electromagnetic interferences by a specially designed and highly effective collective shield.

The cable is suitable for fixed installations.

CONSTRUCTION

- single wire annealed tin-plated copper conductors of diameter 0.4 mm,
- polyethylene (PE) insulation – identification colour code according to PN-92/T-90321 standard,
- insulated conductors twisted into pairs,
- pair electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded pairs laid-up into a cable core,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

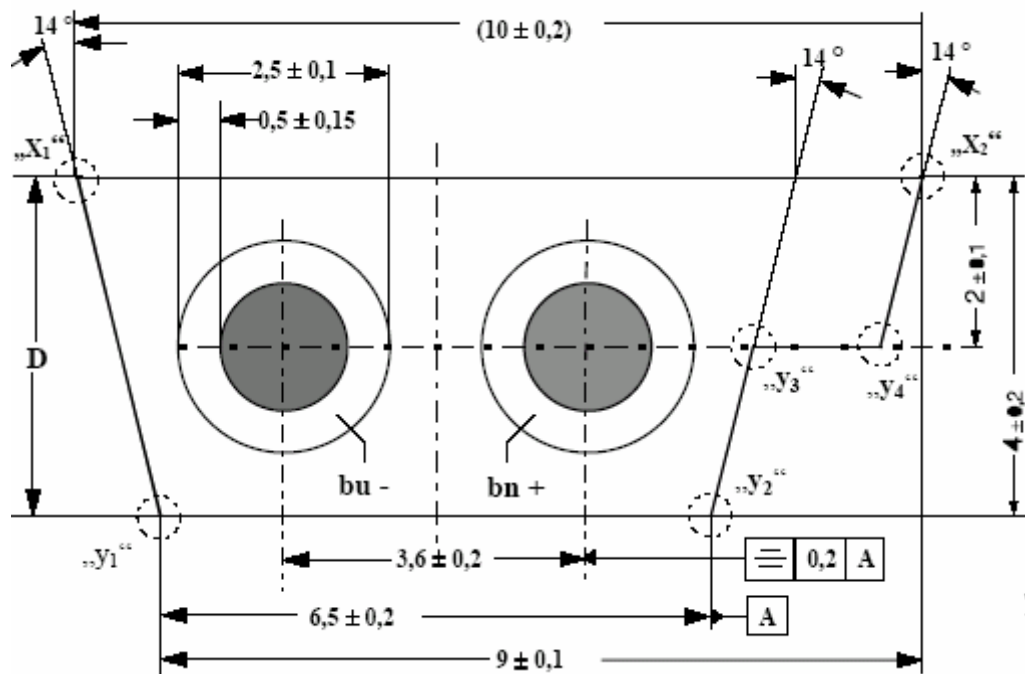
J-2Y(St)(St)H 120 Ω – halogen-free cable, applied when higher safety level in case of fire is required. The cable is flame retardant, its smoke emission in fire is low and released gases are not corrosive.

J-2Y(St)(St)Y 120 Ω**CHARACTERISTICS**

Characteristic impedance	120 ± 15 Ω	Attenuation loss, maximum:	
Capacitance between conductors at 1 kHz	50 ± 5 nF/km	at 1 MHz	3.6 dB/100m
Insulation resistance, minimum	10 GΩ·km	at 4 MHz	6.0 dB/100m
DC loop resistance at 20°C, maximum	290 Ω/km	at 10 MHz	9.0 dB/100m
Operating voltage	150 V	at 16 MHz	11.0 dB/100m
Voltage test	1500 V rms	Temperature range:	
		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 50265-2-1 and IEC 60332-1
		Reference Standards	DIN VDE 815

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
	8 x 2 x 0.4c	10.0	24.5	107
	12 x 2 x 0.4c	12.5	29.0	160

TECHNOTRONIK C-BUS/A/J 2 x 1.5 mm²**ASI BUS CABLE (Actuated Sensor Interface)****APPLICATIONS**

TECHNOTRONIK C-BUS/A/J 2 x 1.5 mm² 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

- 1.5 mm² cross-section flexible multiwire conductors, stranded of annealed tin-plated copper wires (85 x 0.15 mm), meeting requirements of class 6 per PN-EN 60228 standard,
- thermoplastic elastomer (TPE-O) insulation - brown and blue,
- insulated conductors arranged in parallel at constant distance between them,
- thermoplastic elastomer (TPE-O) cable sheath, yellow.

TECHNOTRONIK C-BUS/A/J 2 x 1.5 mm²

CHARACTERISTICS

Characteristic impedance	120 ± 20 Ω	Operating temperature range	from -40 to +105°C
Operating voltage	48 V DC	Minimum bending radius for fixed installation	3 x cable thickness or 4 x its width
Voltage test	1500 V rms	for movable installation	6 x cable thickness or 10 x its 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 50265-2-1 and IEC 60332-1
Mutual capacitance	45 ± 5 nF/km	Reference standards	EN 50295
Inductance, approximate.	0.64 mH/km		

Product No.	Number of pairs x conductor cross-section	Cable dimensions (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
8.1.131	2 x 1.5	4.0 x 10.0	28.8	74.5

FFBUS 105°C 1 x 2 x 18 AWG

FOUNDATION FIELDBUS CABLE**APPLICATIONS**

FFBUS 105°C 1 x 2 x 18 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 fixed and movable indoor installations..

Cable outer sheath is oil-resistant.

CONSTRUCTION

- 18 AWG flexible multiwire conductors, stranded of annealed tin-plated copper wires (7 x 0,40 mm),
- foam-skin polyethylene insulation - blue and brown,
- insulated conductors stranded into a pair,
- 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 according to customer's request.

FFBUS 105°C 1 x 2 x 18 AWG

CHARACTERISTICS

Characteristic impedance	100 ± 20 Ω	Operating temperature range	from -40 to +105°C
Operating voltage	100 V	Minimum bending radius	15 x cable diameter
Voltage test	1500 V rms	Cable combustibility	flame retardant
DC loop resistance at 20°C, maximum	19.6 Ω/km	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
Insulation resistance, minimum	150 MΩ·km	Reference standards	IEC 61158-2
Mutual capacitance at 1 kHz, approximate	50 nF/km		
Attenuation loss at 39 kHz, maximum	3 dB/km		
Inductance, approximate	0.5 mH/km		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x2) x conductor size	Cable dimensions (appr.)	Copper index	Cable weight (appr.)
	number x AWG	mm	kg/km	kg/km
	1 x 2 x 18	7.8	40	68

EIB BUS 2 x 2 x 0.8 mm
EIB BUS-H 2 x 2 x 0.8 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.

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.

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 indoor installations.

CONSTRUCTION of EIB BUS 2 x 2 x 0.8 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 2 x 2 x 0.8 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,
- cable sheath of halogen free compound, colours according to customer's requirement.

AVAILABLE UPON REQUEST

EIB-CY BUS – tinned copper wire braid shielded cable.

EIB BUS 2 x 2 x 0.8 mm
EIB BUS-H 2 x 2 x 0.8 mm**CHARACTERISTICS**

Characteristic impedance	100 ± 20 Ω	Operating temperature range	
Operating voltage	150 V	for operation	from -30 to +70°C
Voltage test	1500 V rms	for installation	from -5 to +50°C
DC loop resistance at 20°C, maximum	75 Ω/km	Minimum bending radius	10 x cable diameter
Insulation resistance, minimum	200 MΩ·km	Cable combustibility	flame retardant
Mutual capacitance at 1 kHz		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
EIB BUS	100 ± 5 nF/km	Reference standards	WT-TK-4
EIB BUS-H	47 ± 5 nF/km		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs x conductor diameter	Cable diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
EIB BUS	2 x 2 x 0.8	6.2	25	56
EIB BUS-H	2 x 2 x 0.8	4.6	25	52

TECHNOKONTROL YKSLY

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS



APPLICATIONS

TECHNOTRONIK YKSLY is a control 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.

The cable 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 cable is 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YKSLY – cable with enhanced black PVC sheath, suitable for outdoor installation.

TECHNOKONTROL YKSLY-Nr – cable with black conductor insulation and white conductor numbers printed on it for identification, available for cross-section 0,5 mm² and bigger.

TECHNOKONTROL YKSLY-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK HKSLH – 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.

TECHNOTRONIK YKSLY – specially designed intrinsically safe cable.

TECHNOKONTROL YKSLY

CHARACTERISTICS

Conductor cross-section	mm ²	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	100	110	120	120	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-14

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.2.036	2 x 0.5	5.0	9.7	29.0
7.2.037	3 x 0.5	5.2	14.5	37.0
7.2.038	4 x 0.5	5.9	19.4	48.0
7.2.039	5 x 0.5	6.4	24.2	57.5
7.2.040	6 x 0.5	6.9	29.1	64.5
7.2.041	7 x 0.5	6.9	33.9	74.0
7.2.042	8 x 0.5	7.3	38.7	95.5
7.2.043	10 x 0.5	8.9	48.4	106.0
7.2.044	12 x 0.5	9.1	58.1	121.5
7.2.046	16 x 0.5	10.3	77.4	159.0
7.2.049	21 x 0.5	10.8	101.6	190.4
7.2.050	24 x 0.5	12.7	116.2	233.5
7.2.052	27 x 0.5	13.0	130.7	256.5
7.2.057	37 x 0.5	14.9	179.1	349.0
7.2.060	44 x 0.5	16.5	213.0	407.5
7.2.071	2 x 0.75	5.7	14.5	39.0
7.2.072	3 x 0.75	6.0	21.8	50.0
7.2.073	4 x 0.75	6.5	29.1	62.5
7.2.074	5 x 0.75	7.1	36.4	74.5
7.2.076	7 x 0.75	7.9	50.9	101.0
7.2.078	10 x 0.75	10.1	72.7	144.0
7.2.079	12 x 0.75	10.4	87.2	165.5
7.2.081	16 x 0.75	11.5	116.3	211.5
7.2.085	24 x 0.75	14.7	174.5	232.5
7.2.087	27 x 0.75	15.0	196.3	356.0
7.2.092	37 x 0.75	16.7	269.0	468.5
7.2.095	44 x 0.75	19.0	319.8	563.5
7.2.106	2 x 1.0	5.9	19.4	44.5
7.2.107	3 x 1.0	6.2	29.1	59.0
7.2.108	4 x 1.0	6.7	38.8	73.5
7.2.109	5 x 1.0	7.4	48.5	88.5
7.2.111	7 x 1.0	8.2	67.9	120.5
7.2.113	10 x 1.0	10.5	97.0	171.5
7.2.114	12 x 1.0	10.8	116.4	199.0
7.2.116	16 x 1.0	12.0	155.2	255.5
7.2.120	24 x 1.0	15.3	232.8	390.0
7.2.122	27 x 1.0	15.6	261.9	430.0
7.2.127	37 x 1.0	17.4	358.9	569.0
7.2.130	44 x 1.0	19.8	426.8	683.5
7.2.141	2 x 1.5	6.9	28.4	61.0
7.2.142	3 x 1.5	7.3	42.6	81.5
7.2.143	4 x 1.5	8.1	56.8	106.5
7.2.144	5 x 1.5	8.9	71.0	128.5
7.2.146	7 x 1.5	9.7	99.4	170.0
7.2.148	10 x 1.5	12.7	142.0	248.0
7.2.149	12 x 1.5	13.1	170.4	288.5
7.2.151	16 x 1.5	14.9	227.2	384.5
7.2.155	24 x 1.5	18.3	340.8	556.5
7.2.157	27 x 1.5	19.1	383.4	632.0
7.2.162	37 x 1.5	21.3	525.4	837.0
7.2.173	2 x 2.5	7.9	47.4	88.0
7.2.174	3 x 2.5	8.4	71.1	119.5
7.2.175	4 x 2.5	9.1	94.8	152.0
7.2.176	5 x 2.5	10.2	118.5	189.5
7.2.178	7 x 2.5	11.1	165.9	252.5
7.2.180	10 x 2.5	14.7	237.0	373.0
7.2.181	12 x 2.5	15.2	284.4	434.5
7.2.183	16 x 2.5	16.8	379.2	562.0

Other cross-sections and conductor counts available on request.

TECHNOKONTROL YKSLY-P**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS**

**APPLICATIONS**

TECHNOKONTROL YKSLY-P is a multipair control 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.

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

The cable can also be used for power supply to small auxiliary devices on condition that current-carrying capacity limit (see our *Technical Guiden*) is not exceeded.

The cable is 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 stranded into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- black PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YvKSLY-P – cable with enhanced black PVC sheath, suitable for outdoor installation.

TECHNOKONTROL YKSLY-P-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK HKSLH-P – 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.

TECHNOTRONIK YKSLY-P – specially designed intrinsically safe cable.

TECHNOKONTROL YKSLY-P

CHARACTERISTICS

Conductor cross-section	mm ²	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	16.0
Mutual capacitance at 1 kHz, approximate	nF/km	100	100	110	120	120	120

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-16

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.3.002	2 x 2 x 0.35	6.9	13.6	43.0
7.3.003	3 x 2 x 0.35	7.3	20.4	55.5
7.3.004	4 x 2 x 0.35	8.3	27.2	72.5
7.3.005	5 x 2 x 0.35	9.1	34.0	86.5
7.3.006	6 x 2 x 0.35	10.1	40.8	105.5
7.3.007	7 x 2 x 0.35	10.1	47.6	116.5
7.3.008	8 x 2 x 0.35	10.5	54.4	133.0
7.3.009	10 x 2 x 0.35	12.3	68.0	164.0
7.3.010	12 x 2 x 0.35	12.9	81.6	189.0
7.3.012	16 x 2 x 0.35	15.0	108.8	254.0
7.3.015	24 x 2 x 0.35	17.8	163.2	359.0
7.3.016	25 x 2 x 0.35	17.9	170.0	371.5
7.3.021	37 x 2 x 0.35	21.9	251.6	544.0
7.3.022	40 x 2 x 0.35	22.5	272.0	598.0
7.3.032	2 x 2 x 0.5	7.6	19.4	54.5
7.3.033	3 x 2 x 0.5	8.1	29.4	71.0
7.3.034	4 x 2 x 0.5	8.8	38.7	88.0
7.3.035	5 x 2 x 0.5	9.9	48.4	110.5
7.3.036	6 x 2 x 0.5	10.8	58.1	128.5
7.3.037	7 x 2 x 0.5	10.8	67.8	143.0
7.3.038	8 x 2 x 0.5	11.3	77.5	162.0
7.3.039	10 x 2 x 0.5	13.2	96.8	202.0
7.3.040	12 x 2 x 0.5	13.9	116.2	234.0
7.3.042	16 x 2 x 0.5	16.1	154.9	314.0
7.3.046	25 x 2 x 0.5	19.7	242.0	482.0
7.3.048	30 x 2 x 0.5	21.5	290.4	564.0
7.3.052	40 x 2 x 0.5	24.6	387.2	750.0
7.3.062	2 x 2 x 0.75	8.5	29.1	69.5
7.3.063	3 x 2 x 0.75	9.0	43.7	91.5
7.3.064	4 x 2 x 0.75	10.1	58.2	120.0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.3.065	5 x 2 x 0.75	11.1	72.7	144.5
7.3.067	7 x 2 x 0.75	12.3	101.8	194.5
7.3.069	10 x 2 x 0.75	15.3	145.4	281.0
7.3.070	12 x 2 x 0.75	16.0	174.5	325.5
7.3.072	16 x 2 x 0.75	18.1	232.6	418.5
7.3.075	24 x 2 x 0.75	22.0	349.0	620.0
7.3.085	2 x 2 x 1.0	8.8	38.8	81.0
7.3.086	3 x 2 x 1.0	9.4	58.2	109.0
7.3.087	4 x 2 x 1.0	10.5	77.6	142.5
7.3.088	5 x 2 x 1.0	11.6	97.0	172.5
7.3.090	7 x 2 x 1.0	12.8	135.8	233.5
7.3.092	10 x 2 x 1.0	15.9	194.0	336.5
7.3.093	12 x 2 x 1.0	16.7	232.8	392.0
7.3.098	24 x 2 x 1.0	23.4	465.6	771.0
7.3.109	2 x 2 x 1.5	10.7	56.8	116.5
7.3.110	3 x 2 x 1.5	11.4	82.2	157.5
7.3.111	4 x 2 x 1.5	12.8	113.6	206.0
7.3.112	5 x 2 x 1.5	14.5	142.0	262.0
7.3.114	7 x 2 x 1.5	15.8	198.8	345.5
7.3.116	10 x 2 x 1.5	19.5	284.0	464.5
7.3.117	12 x 2 x 1.5	20.5	340.8	576.5
7.3.122	24 x 2 x 1.5	28.1	681.6	1103.0
7.3.127	2 x 2 x 2.5	12.3	94.8	169.5
7.3.128	3 x 2 x 2.5	13.1	142.2	232.0
7.3.129	4 x 2 x 2.5	14.8	189.6	309.0
7.3.130	5 x 2 x 2.5	16.3	237.0	376.0
7.3.132	7 x 2 x 2.5	17.8	331.8	502.0
7.3.134	10 x 2 x 2.5	22.1	474.0	719.0
7.3.135	12 x 2 x 2.5	23.6	568.8	863.5

Other cross-sections and pair counts available on request.

TECHNOKONTROL YKSLYekw**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS****APPLICATIONS**

TECHNOKONTROL YKSLYekw is an overall shielded control 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 overall electrostatic shield protects cable circuits against interference by external electric fields

The cable 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 cable is 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 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YKSLYekw-Nr – cable with black insulation and white conductor numbers printed on it for identification, available for cross-section 0.5 mm² and bigger.

TECHNOKONTROL YKSLYekw-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK HKSLHekw – 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.

TECHNOTRONIK YKSLYekw – specially designed intrinsically safe cable.

TECHNOKONTROL YKSLYekw
CHARACTERISTICS

Conductor cross-section	mm ²	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	130	130

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	from - 5 to + 70°C
Impedance, approximate	80 Ω	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-14

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.4.034	2 x 0.5	5.1	12.1	32.5
7.4.035	3 x 0.5	5.3	16.9	40.5
7.4.036	4 x 0.5	6.0	21.8	52.0
7.4.037	5 x 0.5	6.5	26.6	61.5
7.4.038	6 x 0.5	7.0	31.5	68.5
7.4.039	7 x 0.5	7.0	36.3	78.0
7.4.040	8 x 0.5	7.4	41.1	99.5
7.4.041	10 x 0.5	9.0	50.8	110.5
7.4.042	12 x 0.5	9.2	60.5	126.0
7.4.044	16 x 0.5	10.4	79.8	163.5
7.4.048	24 x 0.5	12.8	118.6	238.5
7.4.050	27 x 0.5	13.1	133.1	261.5
7.4.055	37 x 0.5	15.0	181.5	355.0
7.4.058	44 x 0.5	16.6	215.4	444.0
7.4.067	2 x 0.75	5.8	19.3	45.0
7.4.068	3 x 0.75	6.1	26.6	56.0
7.4.069	4 x 0.75	6.6	33.9	69.0
7.4.070	5 x 0.75	7.2	41.2	81.0
7.4.072	7 x 0.75	8.0	55.7	107.5
7.4.074	10 x 0.75	10.2	77.5	151.0
7.4.075	12 x 0.75	10.5	92.0	172.5
7.4.077	16 x 0.75	11.6	121.1	219.0
7.4.081	24 x 0.75	14.8	179.3	240.5
7.4.083	27 x 0.75	15.1	201.1	364.0
7.4.088	37 x 0.75	16.8	273.8	477.0
7.4.091	44 x 0.75	19.1	324.6	572.5
7.4.097	2 x 1.0	6.0	24.2	50.5
7.4.098	3 x 1.0	6.3	33.9	65.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.4.099	4 x 1.0	6.8	43.6	80.0
7.4.100	5 x 1.0	7.5	53.3	95.0
7.4.102	7 x 1.0	8.3	72.7	127.0
7.4.104	10 x 1.0	10.6	101.8	178.5
7.4.105	12 x 1.0	10.9	121.2	206.0
7.4.107	16 x 1.0	12.1	160.0	263.0
7.4.111	24 x 1.0	15.4	237.6	398.0
7.4.113	27 x 1.0	15.7	266.7	438.0
7.4.118	37 x 1.0	17.5	363.7	577.5
7.4.130	2 x 1.5	7.0	35.6	70.0
7.4.131	3 x 1.5	7.4	49.8	90.5
7.4.132	4 x 1.5	8.2	64.0	115.5
7.4.133	5 x 1.5	9.0	78.2	137.5
7.4.135	7 x 1.5	9.8	106.6	179.5
7.4.137	10 x 1.5	12.8	149.2	258.0
7.4.138	12 x 1.5	13.2	177.6	298.5
7.4.140	16 x 1.5	15.0	234.4	394.5
7.4.144	24 x 1.5	18.4	348.0	567.5
7.4.146	27 x 1.5	19.2	390.6	643.0
7.4.151	37 x 1.5	21.4	532.6	848.5
7.4.162	2 x 2.5	8.0	54.6	97.0
7.4.163	3 x 2.5	8.5	78.3	128.5
7.4.164	4 x 2.5	9.2	102.0	161.0
7.4.165	5 x 2.5	10.3	127.5	199.0
7.4.167	7 x 2.5	11.2	173.1	262.0
7.4.169	10 x 2.5	14.8	244.2	383.5
7.4.170	12 x 2.5	15.3	291.6	445.0
7.4.172	16 x 2.5	16.9	386.4	572.5

Other cross-sections and conductor counts are available upon request.

TECHNOKONTROL YKSLYekw-P**CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS****APPLICATIONS**

TECHNOKONTROL YKSLYekw-P is a multipair overall shielded control 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.

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

An overall electrostatic shield protects cable circuits against interference by external electric fields

The cable 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 cable is 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 189-2,
- insulated conductors stranded 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YKSLYekw-P-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK HKSLHekw-P – 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.

TECHNOTRONIK YKSLYekw-P – specially designed intrinsically safe cable.

TECHNOKONTROL YKSLYekw-P

CHARACTERISTICS

Conductor cross-section	mm ²	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	16.0
Mutual capacitance at 1 kHz, approximate	nF/km	110	110	120	130	130	130

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-16

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.5.002	2 x 2 x 0.35	7.0	16.0	47.0
7.5.003	3 x 2 x 0.35	7.6	22.8	59.5
7.5.004	4 x 2 x 0.35	8.4	29.6	77.0
7.5.005	5 x 2 x 0.35	9.2	36.4	91.0
7.5.006	6 x 2 x 0.35	10.2	43.2	110.0
7.5.007	7 x 2 x 0.35	10.2	50.0	121.0
7.5.008	8 x 2 x 0.35	10.6	56.8	137.5
7.5.009	10 x 2 x 0.35	12.4	70.4	169.0
7.5.010	12 x 2 x 0.35	13.0	84.0	194.0
7.5.012	16 x 2 x 0.35	15.1	111.2	259.5
7.5.015	24 x 2 x 0.35	17.9	165.6	365.0
7.5.016	25 x 2 x 0.35	18.0	172.4	377.5
7.5.022	40 x 2 x 0.35	22.6	274.4	605.0
7.5.032	2 x 2 x 0.5	7.7	21.8	58.5
7.5.033	3 x 2 x 0.5	8.2	31.8	75.0
7.5.034	4 x 2 x 0.5	8.9	41.1	92.5
7.5.035	5 x 2 x 0.5	10.0	50.8	115.0
7.5.036	6 x 2 x 0.5	10.9	60.5	133.0
7.5.037	7 x 2 x 0.5	10.9	70.2	147.5
7.5.038	8 x 2 x 0.5	11.4	79.9	167.0
7.5.039	10 x 2 x 0.5	13.3	99.2	207.0
7.5.040	12 x 2 x 0.5	14.0	118.6	239.5
7.5.042	16 x 2 x 0.5	16.2	157.3	320.0
7.5.045	24 x 2 x 0.5	19.6	234.7	470.5
7.5.048	30 x 2 x 0.5	21.6	292.8	571.0
7.5.051	37 x 2 x 0.5	24.0	360.6	707.5
7.5.052	40 x 2 x 0.5	24.7	289.6	757.5
7.5.062	2 x 2 x 0.75	8.6	33.9	76.0
7.5.063	3 x 2 x 0.75	9.01	48.5	98.5
7.5.064	4 x 2 x 0.75	10.2	63.0	127.0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.5.065	5 x 2 x 0.75	11.2	77.5	151.5
7.5.067	7 x 2 x 0.75	12.4	106.6	202.0
7.5.069	10 x 2 x 0.75	15.4	150.2	289.0
7.5.070	12 x 2 x 0.75	16.1	179.3	333.5
7.5.072	16 x 2 x 0.75	18.2	237.4	427.0
7.5.077	27 x 2 x 0.75	23.7	397.4	718.0
7.5.086	2 x 2 x 1.0	8.9	43.6	87.5
7.5.087	3 x 2 x 1.0	9.5	63.0	116.0
7.5.088	4 x 2 x 1.0	10.6	82.4	149.5
7.5.089	5 x 2 x 1.0	11.7	101.8	180.0
7.5.091	7 x 2 x 1.0	12.9	140.6	241.0
7.5.093	10 x 2 x 1.0	16.0	198.8	344.5
7.5.094	12 x 2 x 1.0	16.8	237.6	400.5
7.5.099	24 x 2 x 1.0	23.5	470.4	780.5
7.5.101	27 x 2 x 1.0	24.7	528.6	866.5
7.5.110	2 x 2 x 1.5	10.8	64.0	126.0
7.5.111	3 x 2 x 1.5	11.5	89.4	167.0
7.5.112	4 x 2 x 1.5	12.9	120.8	216.0
7.5.113	5 x 2 x 1.5	14.6	149.2	272.5
7.5.115	7 x 2 x 1.5	15.9	206.0	356.0
7.5.117	10 x 2 x 1.5	19.6	291.2	476.0
7.5.118	12 x 2 x 1.5	20.6	348.0	588.0
7.5.127	2 x 2 x 2.5	12.4	102.0	179.5
7.5.128	3 x 2 x 2.5	13.2	149.4	242.0
7.5.129	4 x 2 x 2.5	14.9	196.8	319.5
7.5.130	5 x 2 x 2.5	16.4	244.2	386.5
7.5.132	7 x 2 x 2.5	17.9	339.0	513.0
7.5.134	10 x 2 x 2.5	22.2	481.2	731.0
7.5.135	12 x 2 x 2.5	23.7	576.0	875.5

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLYekpek

CONTROL CABLES FOR INDUSTRIAL ELECTRONIC APPLICATIONS**APPLICATIONS**

TECHNOKONTROL YKSLYekpek is a multipair, pair and overall shielded control 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.

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

An overall electrostatic shield protects cable circuits against interference by external electric fields

The cable 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 cable is 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 189-2,
- insulated conductors stranded 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YKSLYekpek-O – cable 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOTRONIK HKSLHekpek – 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.

TECHNOTRONIK YKSLYekpek – specially designed intrinsically safe cable.

TECHNOKONTROL YKSL Yekpek

CHARACTERISTICS

Conductor cross-section	mm ²	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	16.0
Mutual capacitance at 1 kHz, approximate	nF/km	180	210	220	220	250

Operating voltage U ₀ /U	300/300 V	Operating temperature range	
Insulation resistance, minimum	20 MΩ·km	for fixed equipment	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable equipment	from - 5 to + 70°C
Impedance, approximate	40 Ω	Minimum bending radius	10 x cable diameter
Capacitance unbalance, maximum	250 pF/100 m	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-18

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.8.123	2 x 2 x 0.5	8.2	26.7	69.0
7.8.124	3 x 2 x 0.5	8.7	38.8	90.0
7.8.125	4 x 2 x 0.5	9.5	50.9	112.5
7.8.126	5 x 2 x 0.5	10.7	63.0	139.5
7.8.135	6 x 2 x 0.5	11.6	75.2	163.0
7.8.127	8 x 2 x 0.5	12.6	99.4	210.0
7.8.128	10 x 2 x 0.5	14.7	123.7	269.0
7.8.129	12 x 2 x 0.5	15.4	147.9	311.0
7.8.130	16 x 2 x 0.5	17.3	196.5	398.5
7.8.282	18 x 2 x 0.5	18.2	220.7	442.0
7.8.132	24 x 2 x 0.5	21.1	293.5	589.0
7.8.133	36 x 2 x 0.5	25.5	439.0	868.0
7.8.134	48 x 2 x 0.5	28.9	584.6	1123.5
7.8.136	2 x 2 x 0.75	8.6	43.6	89.0
7.8.137	3 x 2 x 0.75	9.1	63.0	118.5
7.8.138	4 x 2 x 0.75	10.2	82.5	154.0
7.8.139	5 x 2 x 0.75	11.2	101.9	185.5
7.8.140	8 x 2 x 0.75	13.2	160.1	281.5
7.8.141	10 x 2 x 0.75	15.4	198.9	358.5
7.8.142	12 x 2 x 0.75	16.1	237.8	417.0
7.8.143	16 x 2 x 0.75	18.2	315.4	539.0
7.8.145	24 x 2 x 0.75	22.1	470.7	797.5
7.8.146	36 x 2 x 0.75	26.8	703.7	1179.0
7.8.147	2 x 2 x 1.0	8.9	53.4	101.0
7.8.148	3 x 2 x 1.0	9.5	77.7	136.0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.8.149	4 x 2 x 1.0	10.6	102.0	176.5
7.8.150	5 x 2 x 1.0	11.7	126.3	214.0
7.8.151	8 x 2 x 1.0	13.8	199.2	326.0
7.8.152	10 x 2 x 1.0	16.0	247.8	414.5
7.8.153	12 x 2 x 1.0	16.8	296.4	484.0
7.8.154	16 x 2 x 1.0	19.4	393.6	644.0
7.8.156	24 x 2 x 1.0	23.5	587.9	950.5
7.8.157	2 x 2 x 1.5	10.8	78.7	145.5
7.8.158	3 x 2 x 1.5	11.5	114.4	196.5
7.8.159	4 x 2 x 1.5	12.9	150.2	255.5
7.8.160	5 x 2 x 1.5	14.6	185.9	322.5
7.8.280	6 x 2 x 1.5	15.9	221.7	378.0
7.8.161	8 x 2 x 1.5	16.9	293.1	480.5
7.8.162	10 x 2 x 1.5	19.6	364.6	607.0
7.8.163	12 x 2 x 1.5	20.6	436.1	709.5
7.8.164	16 x 2 x 1.5	23.7	579.1	941.0
7.8.166	2 x 2 x 2.5	12.4	116.9	198.5
7.8.167	3 x 2 x 2.5	13.2	171.7	271.5
7.8.168	4 x 2 x 2.5	14.9	226.5	360.0
7.8.169	5 x 2 x 2.5	16.4	281.4	437.5
7.8.170	8 x 2 x 2.5	19.5	445.9	924.5
7.8.171	10 x 2 x 2.5	22.2	555.6	1159.5
7.8.172	12 x 2 x 2.5	23.7	665.2	1359.5
7.8.173	16 x 2 x 2.5	26.8	884.6	1797.0

Other cross-sections and pair counts are available upon request.

B – Control and signal cables for 300/500 V

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 and DIN VDE 0295,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYY 300/500 V

TECHNOFLEKS LiYYżo 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	3,5	4,8	19,6
	2 x 0,5	5,3	9,6	39,5
	3 x 0,5	5,5	14,4	46,9
	4 x 0,5	6,0	19,2	56,2
	5 x 0,5	6,5	24,0	67,6
	6 x 0,5	7,0	28,8	79,2
	7 x 0,5	7,0	33,6	83,1
	8 x 0,5	8,1	38,4	104,5
	10 x 0,5	8,8	48,0	115,5
	12 x 0,5	9,0	57,6	130,6
	14 x 0,5	9,5	67,2	147,2
	16 x 0,5	10,4	76,8	174,7
	18 x 0,5	10,9	86,4	193,9
	19 x 0,5	10,9	91,2	197,8
	21 x 0,5	11,4	100,8	215,4
	24 x 0,5	12,6	115,2	246,2
	25 x 0,5	12,6	120,0	253,4
	27 x 0,5	12,9	129,6	268,8
	30 x 0,5	13,4	144,0	292,9
	34 x 0,5	14,0	163,2	325,9
	36 x 0,5	14,6	172,8	352,0
	37 x 0,5	14,6	177,6	355,9
	40 x 0,5	15,1	192,0	380,9
	41 x 0,5	15,3	196,8	388,2
	44 x 0,5	16,3	211,2	419,4
	48 x 0,5	16,6	230,4	449,4
	50 x 0,5	16,6	240,3	462,4
	52 x 0,5	17,0	249,6	480,9
	56 x 0,5	17,5	268,8	514,6
	60 x 0,5	18,1	288,0	548,5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,75	3,8	7,2	24,1
	2 x 0,75	5,8	14,4	49,6
	3 x 0,75	6,1	21,6	59,8
	4 x 0,75	6,6	28,8	72,3
	5 x 0,75	7,2	36,0	87,5
	6 x 0,75	7,8	43,2	102,9
	7 x 0,75	7,8	50,4	108,6
	8 x 0,75	9,0	57,6	136,6
	10 x 0,75	9,8	72,0	151,8
	12 x 0,75	10,5	86,4	181,7
	14 x 0,75	11,0	100,8	204,8
	16 x 0,75	11,6	115,2	230,5
	18 x 0,75	12,2	129,6	256,6
	19 x 0,75	12,2	136,8	262,2
	21 x 0,75	12,8	151,2	286,1
	24 x 0,75	14,2	172,8	327,3
	25 x 0,75	14,2	180,0	337,4
	27 x 0,75	14,7	194,4	365,0
	30 x 0,75	15,2	216,0	398,4
	34 x 0,75	15,9	244,8	443,7
	36 x 0,75	16,4	259,2	470,8
	37 x 0,75	16,4	266,4	476,5
	40 x 0,75	17,0	288,0	510,7
	41 x 0,75	17,2	295,2	520,6
	44 x 0,75	18,4	316,8	562,6
	48 x 0,75	19,1	345,6	620,7
	50 x 0,75	19,1	360,0	639,0
	52 x 0,75	19,6	374,4	664,6
	56 x 0,75	20,2	403,2	711,3
	60 x 0,75	20,8	432,0	758,3

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.)
	number x mm ²	mm	kg/km	kg/km
	1 x 1,0	3,9	9,6	27,3
	2 x 1,0	6,0	19,2	56,5
	3 x 1,0	6,3	28,8	69,1
	4 x 1,0	6,9	38,4	84,3
	5 x 1,0	7,5	48,0	102,4
	6 x 1,0	8,1	57,6	120,8
	7 x 1,0	8,1	67,2	128,6
	8 x 1,0	9,4	76,8	160,7
	10 x 1,0	10,6	96,0	189,4
	12 x 1,0	10,9	115,2	215,6
	14 x 1,0	11,5	134,4	243,9
	16 x 1,0	12,1	153,6	275,2
	18 x 1,0	12,7	172,8	306,7
	19 x 1,0	12,7	182,4	314,5
	21 x 1,0	13,3	201,6	343,7
	24 x 1,0	15,0	230,4	399,8
	25 x 1,0	15,0	240,0	412,5
	27 x 1,0	15,3	259,2	438,8
	30 x 1,0	15,9	288,0	480,0
	34 x 1,0	16,6	326,4	535,9
	36 x 1,0	17,1	345,6	568,6
	37 x 1,0	17,1	355,2	576,3
	40 x 1,0	17,7	384,0	618,5
	41 x 1,0	17,9	393,6	630,8
	44 x 1,0	19,6	422,4	698,4
	48 x 1,0	19,9	460,8	750,3
	50 x 1,0	19,9	480,0	773,4
	52 x 1,0	20,5	499,2	804,5
	56 x 1,0	21,1	537,6	861,8
	60 x 1,0	21,7	576,0	919,4
	1 x 1,5	4,4	14,5	36,7
	2 x 1,5	7,0	29,0	78,1
	3 x 1,5	7,4	43,5	96,6
	4 x 1,5	8,1	58,0	118,5
	5 x 1,5	8,8	72,5	144,8
	6 x 1,5	9,6	87,0	171,5
	7 x 1,5	9,6	101,5	182,7
	8 x 1,5	11,6	116,0	239,6
	10 x 1,5	12,6	145,0	268,3
	12 x 1,5	13,0	174,0	306,6
	14 x 1,5	13,7	203,0	347,9
	16 x 1,5	14,6	232,0	399,9
	18 x 1,5	15,4	261,0	446,3
	19 x 1,5	15,4	275,5	457,6
	21 x 1,5	16,2	304,5	500,4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1,5	18,0	348,0	573,1
	25 x 1,5	18,0	362,5	591,8
	27 x 1,5	18,8	391,5	646,7
	30 x 1,5	19,5	435,0	707,5
	34 x 1,5	20,4	493,0	790,0
	36 x 1,5	21,0	522,0	838,7
	37 x 1,5	21,0	536,5	849,9
	40 x 1,5	21,8	580,0	912,1
	41 x 1,5	22,0	594,5	930,2
	44 x 1,5	24,0	638,0	1026,1
	48 x 1,5	24,4	696,0	1102,7
	50 x 1,5	24,4	725,0	1136,8
	52 x 1,5	25,1	754,0	1182,8
	56 x 1,5	25,8	812,0	1267,5
	60 x 1,5	26,6	870,0	1352,7
	1 x 2,5	4,8	24,0	49,7
	2 x 2,5	7,8	48,0	106,8
	3 x 2,5	8,3	72,0	135,1
	4 x 2,5	9,0	96,0	167,7
	5 x 2,5	10,3	120,0	215,0
	6 x 2,5	11,2	144,0	254,7
	7 x 2,5	11,2	168,0	273,6
	8 x 2,5	13,0	192,0	340,4
	10 x 2,5	14,2	240,0	385,6
	12 x 2,5	14,9	288,0	450,7
	14 x 2,5	15,6	336,0	513,2
	16 x 2,5	16,5	384,0	581,6
	18 x 2,5	17,4	432,0	650,5
	19 x 2,5	17,4	456,0	669,5
	21 x 2,5	18,3	504,0	733,6
	24 x 2,5	20,8	516,0	858,7
	25 x 2,5	20,8	600,0	887,5
	27 x 2,5	21,3	648,0	946,7
	30 x 2,5	22,0	720,0	1038,8
	34 x 2,5	23,5	816,0	1183,9
	36 x 2,5	24,2	864,0	1256,5
	37 x 2,5	24,2	888,0	1275,5
	40 x 2,5	25,1	960,0	1370,1
	41 x 2,5	25,4	984,0	1398,1
	44 x 2,5	27,2	1056,0	1509,6
	48 x 2,5	27,7	1152,0	1626,9
	50 x 2,5	27,7	1200,0	1680,2
	52 x 2,5	28,4	1248,0	1748,5
	56 x 2,5	29,3	1344,0	1876,1
	60 x 2,5	30,2	1440,0	2004,4

Other cross-sections and conductor counts available upon request.

TECHNOFLEKS LiYY-Nr 300/500 V
TECHNOFLEKS LiYYžo-Nr 300/500 V**CONTROL AND POWER SUPPLY FLEXIBLE CABLES****APPLICATIONS**

TECHNOFLEKS LiYY-Nr 300/500 V and **TECHNOFLEKS LiYYžo-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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in **TECHNOFLEKS LiYYžo-Nr 300/500 V** cable,
- insulated conductors laid-up in layers - green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYžo-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 LiYYžo-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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOFLEKS LiY11Y-Nr 300/500 V and **TECHNOFLEKS LiY11Yžo-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 LiYY-Nr 300/500 V

TECHNOFLEKS LiYYżo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	3,5	4,8	19,6
	2 x 0,5	5,3	9,6	39,5
	3 x 0,5	5,5	14,4	46,9
	4 x 0,5	6,0	19,2	56,2
	5 x 0,5	6,5	24,0	67,6
	6 x 0,5	7,0	28,8	79,2
	7 x 0,5	7,0	33,6	83,1
	8 x 0,5	8,1	38,4	104,5
	10 x 0,5	8,8	48,0	115,5
	12 x 0,5	9,0	57,6	130,6
	14 x 0,5	9,5	67,2	147,2
	16 x 0,5	10,4	76,8	174,7
	18 x 0,5	10,9	86,4	193,9
	19 x 0,5	10,9	91,2	197,8
	21 x 0,5	11,4	100,8	215,4
	24 x 0,5	12,6	115,2	246,2
	25 x 0,5	12,6	120,0	253,4
	27 x 0,5	12,9	129,6	268,8
	30 x 0,5	13,4	144,0	292,9
	34 x 0,5	14,0	163,2	325,9
	36 x 0,5	14,6	172,8	352,0
	37 x 0,5	14,6	177,6	355,9
	40 x 0,5	15,1	192,0	380,9
	41 x 0,5	15,3	196,8	388,2
	44 x 0,5	16,3	211,2	419,4
	48 x 0,5	16,6	230,4	449,4
	50 x 0,5	16,6	240,3	462,4
	52 x 0,5	17,0	249,6	480,9
	56 x 0,5	17,5	268,8	514,6
	60 x 0,5	18,1	288,0	548,5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,75	3,8	7,2	24,1
	2 x 0,75	5,8	14,4	49,6
	3 x 0,75	6,1	21,6	59,8
	4 x 0,75	6,6	28,8	72,3
	5 x 0,75	7,2	36,0	87,5
	6 x 0,75	7,8	43,2	102,9
	7 x 0,75	7,8	50,4	108,6
	8 x 0,75	9,0	57,6	136,6
	10 x 0,75	9,8	72,0	151,8
	12 x 0,75	10,5	86,4	181,7
	14 x 0,75	11,0	100,8	204,8
	16 x 0,75	11,6	115,2	230,5
	18 x 0,75	12,2	129,6	256,6
	19 x 0,75	12,2	136,8	262,2
	21 x 0,75	12,8	151,2	286,1
	24 x 0,75	14,2	172,8	327,3
	25 x 0,75	14,2	180,0	337,4
	27 x 0,75	14,7	194,4	365,0
	30 x 0,75	15,2	216,0	398,4
	34 x 0,75	15,9	244,8	443,7
	36 x 0,75	16,4	259,2	470,8
	37 x 0,75	16,4	266,4	476,5
	40 x 0,75	17,0	288,0	510,7
	41 x 0,75	17,2	295,2	520,6
	44 x 0,75	18,4	316,8	562,6
	48 x 0,75	19,1	345,6	620,7
	50 x 0,75	19,1	360,0	639,0
	52 x 0,75	19,6	374,4	664,6
	56 x 0,75	20,2	403,2	711,3
	60 x 0,75	20,8	432,0	758,3

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.)
	number x mm ²	mm	kg/km	kg/km
	1 x 1,0	3,9	9,6	27,3
	2 x 1,0	6,0	19,2	56,5
	3 x 1,0	6,3	28,8	69,1
	4 x 1,0	6,9	38,4	84,3
	5 x 1,0	7,5	48,0	102,4
	6 x 1,0	8,1	57,6	120,8
	7 x 1,0	8,1	67,2	128,6
	8 x 1,0	9,4	76,8	160,7
	10 x 1,0	10,6	96,0	189,4
	12 x 1,0	10,9	115,2	215,6
	14 x 1,0	11,5	134,4	243,9
	16 x 1,0	12,1	153,6	275,2
	18 x 1,0	12,7	172,8	306,7
	19 x 1,0	12,7	182,4	314,5
	21 x 1,0	13,3	201,6	343,7
	24 x 1,0	15,0	230,4	399,8
	25 x 1,0	15,0	240,0	412,5
	27 x 1,0	15,3	259,2	438,8
	30 x 1,0	15,9	288,0	480,0
	34 x 1,0	16,6	326,4	535,9
	36 x 1,0	17,1	345,6	568,6
	37 x 1,0	17,1	355,2	576,3
	40 x 1,0	17,7	384,0	618,5
	41 x 1,0	17,9	393,6	630,8
	44 x 1,0	19,6	422,4	698,4
	48 x 1,0	19,9	460,8	750,3
	50 x 1,0	19,9	480,0	773,4
	52 x 1,0	20,5	499,2	804,5
	56 x 1,0	21,1	537,6	861,8
	60 x 1,0	21,7	576,0	919,4
	1 x 1,5	4,4	14,5	36,7
	2 x 1,5	7,0	29,0	78,1
	3 x 1,5	7,4	43,5	96,6
	4 x 1,5	8,1	58,0	118,5
	5 x 1,5	8,8	72,5	144,8
	6 x 1,5	9,6	87,0	171,5
	7 x 1,5	9,6	101,5	182,7
	8 x 1,5	11,6	116,0	239,6
	10 x 1,5	12,6	145,0	268,3
	12 x 1,5	13,0	174,0	306,6
	14 x 1,5	13,7	203,0	347,9
	16 x 1,5	14,6	232,0	399,9
	18 x 1,5	15,4	261,0	446,3
	19 x 1,5	15,4	275,5	457,6
	21 x 1,5	16,2	304,5	500,4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1,5	18,0	348,0	573,1
	25 x 1,5	18,0	362,5	591,8
	27 x 1,5	18,8	391,5	646,7
	30 x 1,5	19,5	435,0	707,5
	34 x 1,5	20,4	493,0	790,0
	36 x 1,5	21,0	522,0	838,7
	37 x 1,5	21,0	536,5	849,9
	40 x 1,5	21,8	580,0	912,1
	41 x 1,5	22,0	594,5	930,2
	44 x 1,5	24,0	638,0	1026,1
	48 x 1,5	24,4	696,0	1102,7
	50 x 1,5	24,4	725,0	1136,8
	52 x 1,5	25,1	754,0	1182,8
	56 x 1,5	25,8	812,0	1267,5
	60 x 1,5	26,6	870,0	1352,7
	1 x 2,5	4,8	24,0	49,7
	2 x 2,5	7,8	48,0	106,8
	3 x 2,5	8,3	72,0	135,1
	4 x 2,5	9,0	96,0	167,7
	5 x 2,5	10,3	120,0	215,0
	6 x 2,5	11,2	144,0	254,7
	7 x 2,5	11,2	168,0	273,6
	8 x 2,5	13,0	192,0	340,4
	10 x 2,5	14,2	240,0	385,6
	12 x 2,5	14,9	288,0	450,7
	14 x 2,5	15,6	336,0	513,2
	16 x 2,5	16,5	384,0	581,6
	18 x 2,5	17,4	432,0	650,5
	19 x 2,5	17,4	456,0	669,5
	21 x 2,5	18,3	504,0	733,6
	24 x 2,5	20,8	516,0	858,7
	25 x 2,5	20,8	600,0	887,5
	27 x 2,5	21,3	648,0	946,7
	30 x 2,5	22,0	720,0	1038,8
	34 x 2,5	23,5	816,0	1183,9
	36 x 2,5	24,2	864,0	1256,5
	37 x 2,5	24,2	888,0	1275,5
	40 x 2,5	25,1	960,0	1370,1
	41 x 2,5	25,4	984,0	1398,1
	44 x 2,5	27,2	1056,0	1509,6
	48 x 2,5	27,7	1152,0	1626,9
	50 x 2,5	27,7	1200,0	1680,2
	52 x 2,5	28,4	1248,0	1748,5
	56 x 2,5	29,3	1344,0	1876,1
	60 x 2,5	30,2	1440,0	2004,4

Other cross-sections and conductor counts available upon request.

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

CONTROL AND POWER SUPPLY FLEXIBLE CABLES**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 and DIN VDE 0295,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYY-P 300/500 V** cable; black and brown insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYY-P-Nr 300/500 V** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYY-P 300/500 V

TECHNOFLEKS LiYY-P-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0,5	7,7	19,2	57,0
	3 x 2 x 0,5	8,2	28,8	73,0
	4 x 2 x 0,5	8,9	38,4	91,0
	5 x 2 x 0,5	10,2	48,0	118,0
	6 x 2 x 0,5	11,1	57,6	137,0
	7 x 2 x 0,5	11,1	67,2	151,0
	8 x 2 x 0,5	11,8	76,8	169,5
	10 x 2 x 0,5	13,3	96,0	206,5
	12 x 2 x 0,5	14,0	115,2	239
	16 x 2 x 0,5	16,0	153,6	313,0
	20 x 2 x 0,5	17,6	192,0	380,0
	25 x 2 x 0,5	19,8	240,0	480,0
	30 x 2 x 0,5	21,4	288,0	563,0
	40 x 2 x 0,5	24,7	384,0	748,0
	2 x 2 x 0,75	8,6	28,2	72,0
	3 x 2 x 0,75	9,1	43,2	94,0
	4 x 2 x 0,75	10,4	57,6	127,0
	5 x 2 x 0,75	11,4	72,0	152,5
	6 x 2 x 0,75	12,4	86,4	178,0
	7 x 2 x 0,75	12,4	100,8	198,0
	8 x 2 x 0,75	13,2	115,2	222,5
	10 x 2 x 0,75	15,2	144,0	279,0
	12 x 2 x 0,75	15,9	172,8	323,5
	16 x 2 x 0,75	18,0	230,4	419,0
	20 x 2 x 0,75	20,2	288,0	528,5
	2 x 2 x 1,0	8,9	38,4	86,0
	3 x 2 x 1,0	9,5	57,6	111,0
	4 x 2 x 1,0	10,8	76,8	149,5
	5 x 2 x 1,0	11,9	96,0	180,0
	6 x 2 x 1,0	12,9	115,2	211,0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 2 x 1,0	12,9	134,4	236,5
	8 x 2 x 1,0	13,8	153,6	266,0
	10 x 2 x 1,0	15,8	192,0	336,0
	12 x 2 x 1,0	16,6	230,4	393,5
	14 x 2 x 1,0	17,7	268,8	449,0
	16 x 2 x 1,0	19,2	307,2	521,0
	20 x 2 x 1,0	21,1	384,0	633,0
	2 x 2 x 1,5	11,0	57,6	124,5
	3 x 2 x 1,5	11,7	86,4	165,0
	4 x 2 x 1,5	12,9	115,2	208,5
	5 x 2 x 1,5	14,2	144,0	252,5
	6 x 2 x 1,5	15,7	172,8	303,5
	7 x 2 x 1,5	15,7	201,6	341,0
	8 x 2 x 1,5	16,7	230,4	384,5
	10 x 2 x 1,5	19,4	288,0	489,6
	12 x 2 x 1,5	20,4	345,6	570,5
	14 x 2 x 1,5	21,8	403,2	655,0
	16 x 2 x 1,5	23,5	460,8	759,0
	20 x 2 x 1,5	25,9	576,0	926,5
	2 x 2 x 2,5	12,4	96,0	172,0
	3 x 2 x 2,5	13,2	144,0	233,0
	4 x 2 x 2,5	14,7	192,0	304,5
	5 x 2 x 2,5	16,2	240,0	370,5
	6 x 2 x 2,5	17,7	288,0	437,0
	7 x 2 x 2,5	17,7	336,0	494,5
	8 x 2 x 2,5	19,3	384,0	576,0
	10 x 2 x 2,5	22,0	480,0	709,5
	12 x 2 x 2,5	23,5	576,0	980,5
	14 x 2 x 2,5	25,1	672,0	1107,5
	16 x 2 x 2,5	26,6	768,0	1107,5

Other cross-sections and pair counts available upon request.

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 and DIN VDE 0295,
- 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, coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOFLEKS LiYCY-O 300/500 V and **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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOFLEKS LiYC11Y 300/500 V and **TECHNOFLEKS LiYC11Yżo 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 LIYCY 300/500 V

TECHNOFLEKS LIYCYżo 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	4,0	11,9	26,8
	2 x 0,5	5,9	23,8	52,3
	3 x 0,5	6,1	28,5	57,6
	4 x 0,5	6,6	34,4	67,7
	5 x 0,5	7,1	41,0	80,2
	6 x 0,5	7,6	48,6	94,2
	7 x 0,5	7,6	53,4	98,1
	8 x 0,5	8,7	61,0	121,0
	10 x 0,5	9,3	72,5	131,6
	12 x 0,5	9,6	83,0	148,0
	14 x 0,5	10,5	94,3	175,3
	16 x 0,5	11,1	112,6	202,7
	18 x 0,5	11,6	124,4	223,7
	19 x 0,5	11,6	129,2	227,6
	21 x 0,5	12,1	141,1	246,9
	24 x 0,5	13,3	160,6	279,7
	25 x 0,5	13,3	165,4	286,9
	27 x 0,5	13,6	176,2	303,8
	30 x 0,5	14,5	208,6	352,1
	34 x 0,5	15,1	233,9	391,8
	36 x 0,5	15,5	243,5	410,2
	37 x 0,5	15,5	248,3	414,1
	40 x 0,5	16,0	265,3	441,1
	41 x 0,5	16,2	271,3	450,3
	44 x 0,5	17,2	291,3	483,3
	48 x 0,5	17,5	311,8	514,8
	50 x 0,5	17,5	321,4	529,3
	52 x 0,5	17,9	333,9	548,9
	56 x 0,5	19,0	379,2	625,2
	60 x 0,5	19,6	400,7	661,2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,75	4,3	15,7	32,0
	2 x 0,75	6,4	29,0	61,8
	3 x 0,75	6,7	38,6	71,1
	4 x 0,75	7,2	46,1	83,7
	5 x 0,75	7,8	55,8	100,9
	6 x 0,75	8,4	65,8	118,3
	7 x 0,75	8,4	73,0	124,0
	8 x 0,75	9,6	83,0	153,5
	10 x 0,75	10,9	107,3	185,0
	12 x 0,75	11,2	122,7	207,7
	14 x 0,75	11,7	140,6	233,9
	16 x 0,75	12,3	156,1	260,2
	18 x 0,75	12,9	173,8	288,7
	19 x 0,75	12,9	181,0	294,4
	21 x 0,75	13,5	197,4	319,8
	24 x 0,75	15,3	243,5	388,1
	25 x 0,75	15,3	250,7	398,2
	27 x 0,75	15,6	265,5	420,5
	30 x 0,75	16,1	289,9	456,1
	34 x 0,75	16,8	323,3	507,0
	36 x 0,75	17,3	339,9	534,1
	37 x 0,75	17,3	347,1	539,8
	40 x 0,75	17,9	372,3	576,8
	41 x 0,75	18,3	405,6	613,1
	44 x 0,75	19,9	432,2	673,2

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.)
	number x mm ²	mm	kg/km	kg/km
	1 x 1,0	4,4	18,1	35,0
	2 x 1,0	6,6	34,4	68,8
	3 x 1,0	6,9	45,8	79,7
	4 x 1,0	7,4	56,6	95,7
	5 x 1,0	8,1	68,2	115,3
	16 x 1,0	12,8	197,8	306,5
	18 x 1,0	13,4	218,6	339,2
	19 x 1,0	13,4	228,2	347,0
	21 x 1,0	14,4	266,2	400,6
	24 x 1,0	15,9	303,7	454,8
	25 x 1,0	15,9	313,3	467,5
	27 x 1,0	16,2	333,7	495,7
	30 x 1,0	16,8	366,5	540,5
	34 x 1,0	17,5	408,5	600,7
	36 x 1,0	18,0	429,9	633,3
	37 x 1,0	18,2	465,6	666,4
	40 x 1,0	19,2	494,4	725,7
	41 x 1,0	19,4	505,5	740,9
	1 x 1,5	4,9	24,0	44,1
	2 x 1,5	7,6	48,6	92,2
	3 x 1,5	8,0	63,3	105,5
	4 x 1,5	8,7	80,2	129,4
	5 x 1,5	9,4	97,4	157,8
	6 x 1,5	10,6	114,0	195,1
	7 x 1,5	10,7	136,1	214,1
	8 x 1,5	12,3	156,4	266,0
	10 x 1,5	13,3	189,4	293,4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	12 x 1,5	13,7	219,8	334,3
	14 x 1,5	14,8	268,4	401,3
	16 x 1,5	15,5	301,1	450,3
	18 x 1,5	16,3	334,4	500,0
	19 x 1,5	16,3	352,1	514,4
	21 x 1,5	17,1	382,0	557,4
	24 x 1,5	19,5	457,5	672,8
	25 x 1,5	19,5	471,9	691,5
	27 x 1,5	19,9	504,2	734,7
	30 x 1,5	20,6	554,6	802,2
	34 x 1,5	21,5	615,8	889,7
	1 x 2,5	5,3	35,3	57,6
	2 x 2,5	8,4	70,6	120,9
	3 x 2,5	8,8	94,9	142,3
	4 x 2,5	9,6	121,6	177,1
	5 x 2,5	11,0	155,8	234,4
	6 x 2,5	11,9	183,8	276,8
	7 x 2,5	11,9	207,8	295,8
	8 x 2,5	13,7	239,5	367,2
	10 x 2,5	15,1	292,2	416,7
	12 x 2,5	15,8	360,1	496,6
	14 x 2,5	16,5	414,5	564,5
	16 x 2,5	17,4	465,4	634,9
	18 x 2,5	18,9	542,4	748,2
	19 x 2,5	18,9	566,4	767,2
	21 x 2,5	19,8	618,4	834,6
	24 x 2,5	21,9	705,3	948,8

Other cross-sections and conductor counts available upon request.

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 and DIN VDE 0295,
- 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, coverage bigger than 80%,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOFLEKS LiYC11Y-Nr 300/500 V and **TECHNOFLEKS LiYC11Yżo-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 LiYCY-Nr 300/500 V

TECHNOFLEKS LiYCYżo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	4,0	11,9	26,8
	2 x 0,5	5,9	23,8	52,3
	3 x 0,5	6,1	28,5	57,6
	4 x 0,5	6,6	34,4	67,7
	5 x 0,5	7,1	41,0	80,2
	6 x 0,5	7,6	48,6	94,2
	7 x 0,5	7,6	53,4	98,1
	8 x 0,5	8,7	61,0	121,0
	10 x 0,5	9,3	72,5	131,6
	12 x 0,5	9,6	83,0	148,0
	14 x 0,5	10,5	94,3	175,3
	16 x 0,5	11,1	112,6	202,7
	18 x 0,5	11,6	124,4	223,7
	19 x 0,5	11,6	129,2	227,6
	21 x 0,5	12,1	141,1	246,9
	24 x 0,5	13,3	160,6	279,7
	25 x 0,5	13,3	165,4	286,9
	27 x 0,5	13,6	176,2	303,8
	30 x 0,5	14,5	208,6	352,1
	34 x 0,5	15,1	233,9	391,8
	36 x 0,5	15,5	243,5	410,2
	37 x 0,5	15,5	248,3	414,1
	40 x 0,5	16,0	265,3	441,1
	41 x 0,5	16,2	271,3	450,3
	44 x 0,5	17,2	291,3	483,3
	48 x 0,5	17,5	311,8	514,8
	50 x 0,5	17,5	321,4	529,3
	52 x 0,5	17,9	333,9	548,9
	56 x 0,5	19,0	379,2	625,2
	60 x 0,5	19,6	400,7	661,2

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,75	4,3	15,7	32,0
	2 x 0,75	6,4	29,0	61,8
	3 x 0,75	6,7	38,6	71,1
	4 x 0,75	7,2	46,1	83,7
	5 x 0,75	7,8	55,8	100,9
	6 x 0,75	8,4	65,8	118,3
	7 x 0,75	8,4	73,0	124,0
	8 x 0,75	9,6	83,0	153,5
	10 x 0,75	10,9	107,3	185,0
	12 x 0,75	11,2	122,7	207,7
	14 x 0,75	11,7	140,6	233,9
	16 x 0,75	12,3	156,1	260,2
	18 x 0,75	12,9	173,8	288,7
	19 x 0,75	12,9	181,0	294,4
	21 x 0,75	13,5	197,4	319,8
	24 x 0,75	15,3	243,5	388,1
	25 x 0,75	15,3	250,7	398,2
	27 x 0,75	15,6	265,5	420,5
	30 x 0,75	16,1	289,9	456,1
	34 x 0,75	16,8	323,3	507,0
	36 x 0,75	17,3	339,9	534,1
	37 x 0,75	17,3	347,1	539,8
	40 x 0,75	17,9	372,3	576,8
	41 x 0,75	18,3	405,6	613,1
	44 x 0,75	19,9	432,2	673,2

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.)
	number x mm ²	mm	kg/km	kg/km
	1 x 1,0	4,4	18,1	35,0
	2 x 1,0	6,6	34,4	68,8
	3 x 1,0	6,9	45,8	79,7
	4 x 1,0	7,4	56,6	95,7
	5 x 1,0	8,1	68,2	115,3
	6 x 1,0	8,7	80,2	135,3
	7 x 1,0	8,7	89,8	143,1
	8 x 1,0	10,4	103,6	187,2
	10 x 1,0	11,3	132,9	214,0
	12 x 1,0	11,6	155,0	243,7
	14 x 1,0	12,2	175,0	272,5
	16 x 1,0	12,8	197,8	306,5
	18 x 1,0	13,4	218,6	339,2
	19 x 1,0	13,4	228,2	347,0
	21 x 1,0	14,4	266,2	400,6
	24 x 1,0	15,9	303,7	454,8
	25 x 1,0	15,9	313,3	467,5
	27 x 1,0	16,2	333,7	495,7
	30 x 1,0	16,8	366,5	540,5
	34 x 1,0	17,5	408,5	600,7
	36 x 1,0	18,0	429,9	633,3
	37 x 1,0	18,2	465,6	666,4
	40 x 1,0	19,2	494,4	725,7
	41 x 1,0	19,4	505,5	740,9
	1 x 1,5	4,9	24,0	44,1
	2 x 1,5	7,6	48,6	92,2
	3 x 1,5	8,0	63,3	105,5
	4 x 1,5	8,7	80,2	129,4
	5 x 1,5	9,4	97,4	157,8
	6 x 1,5	10,6	114,0	195,1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 1,5	10,7	136,1	214,1
	8 x 1,5	12,3	156,4	266,0
	10 x 1,5	13,3	189,4	293,4
	12 x 1,5	13,7	219,8	334,3
	14 x 1,5	14,8	268,4	401,3
	16 x 1,5	15,5	301,1	450,3
	18 x 1,5	16,3	334,4	500,0
	19 x 1,5	16,3	352,1	514,4
	21 x 1,5	17,1	382,0	557,4
	24 x 1,5	19,5	457,5	672,8
	25 x 1,5	19,5	471,9	691,5
	27 x 1,5	19,9	504,2	734,7
	30 x 1,5	20,6	554,6	802,2
	34 x 1,5	21,5	615,8	889,7
	1 x 2,5	5,3	35,3	57,6
	2 x 2,5	8,4	70,6	120,9
	3 x 2,5	8,8	94,9	142,3
	4 x 2,5	9,6	121,6	177,1
	5 x 2,5	11,0	155,8	234,4
	6 x 2,5	11,9	183,8	276,8
	7 x 2,5	11,9	207,8	295,8
	8 x 2,5	13,7	239,5	367,2
	10 x 2,5	15,1	292,2	416,7
	12 x 2,5	15,8	360,1	496,6
	14 x 2,5	16,5	414,5	564,5
	16 x 2,5	17,4	465,4	634,9
	18 x 2,5	18,9	542,4	748,2
	19 x 2,5	18,9	566,4	767,2
	21 x 2,5	19,8	618,4	834,6
	24 x 2,5	21,9	705,3	948,8

Other cross-sections and conductor counts available upon request.

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 cables.

To achieve high analogue and digital data transmission performance the cables are 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 (tin-plated on request), meeting requirements of class 5 per PN-EN 60228 and DIN VDE 0295,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in TECHNOFLEKS LiYCY-P 300/500 V cable; black and brown insulation and white pair numbers printed on it for identification in TECHNOFLEKS LiYCY-P-Nr 300/500 V cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield, coverage bigger than 80%,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYCY-P 300/500 V

TECHNOFLEKS LiYCY-P-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0,5	8,3	40,3	80,5
	3 x 2 x 0,5	8,7	51,4	98,5
	4 x 2 x 0,5	9,5	63,8	119,0
	5 x 2 x 0,5	10,9	83,6	156,5
	6 x 2 x 0,5	11,8	97,4	179,5
	7 x 2 x 0,5	11,8	107,0	194,0
	8 x 2 x 0,5	12,5	121,0	216,5
	10 x 2 x 0,5	14,0	144,6	257,5
	12 x 2 x 0,5	15,1	185,9	318,0
	14 x 2 x 0,5	16,0	212,9	359,5
	16 x 2 x 0,5	16,9	232,1	393,5
	18 x 2 x 0,5	17,9	283,2	457,5
	20 x 2 x 0,5	19,1	302,4	508,5
	24 x 2 x 0,5	20,5	353,0	587,0
	25 x 2 x 0,5	20,9	362,6	604,0
	30 x 2 x 0,5	22,5	421,1	696,5
	2 x 2 x 0,75	9,2	52,9	100,0
	3 x 2 x 0,75	9,7	69,0	123,0
	4 x 2 x 0,75	11,1	93,7	167,0
	5 x 2 x 0,75	12,1	112,3	196,0
	6 x 2 x 0,75	13,1	130,9	225,5
	7 x 2 x 0,75	13,1	145,3	245,5
	8 x 2 x 0,75	13,9	163,8	273,5
	10 x 2 x 0,75	16,1	217,9	355,5
	12 x 2 x 0,75	16,8	251,3	404,0
	14 x 2 x 0,75	17,9	285,9	456,0
	16 x 2 x 0,75	19,5	343,9	548,0
	18 x 2 x 0,75	20,4	377,8	599,0
	20 x 2 x 0,75	21,3	414,1	652,5
	2 x 2 x 1,0	9,5	63,8	112,0
	3 x 2 x 1,0	10,4	84,7	150,0
	4 x 2 x 1,0	11,5	114,8	191,0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	5 x 2 x 1,0	12,6	138,3	226,0
	6 x 2 x 1,0	13,6	162,2	261,0
	7 x 2 x 1,0	13,6	183,0	288,0
	8 x 2 x 1,0	14,7	204,0	325,5
	10 x 2 x 1,0	16,7	270,5	414,5
	12 x 2 x 1,0	17,5	312,5	472,0
	14 x 2 x 1,0	19,2	379,9	575,0
	16 x 2 x 1,0	20,3	425,8	639,5
	18 x 2 x 1,0	21,3	471,7	703,5
	20 x 2 x 1,0	22,2	515,8	765,5
	2 x 2 x 1,5	11,7	97,4	168,0
	3 x 2 x 1,5	12,4	128,3	210,5
	4 x 2 x 1,5	13,6	162,2	259,0
	5 x 2 x 1,5	15,1	196,2	314,8
	6 x 2 x 1,5	16,6	249,5	383,5
	7 x 2 x 1,5	16,6	280,1	422,5
	8 x 2 x 1,5	17,6	313,9	470,4
	10 x 2 x 1,5	20,5	407,8	612,5
	12 x 2 x 1,5	21,5	358,9	594,5
	14 x 2 x 1,5	23,3	540,6	815,0
	16 x 2 x 1,5	24,6	607,0	908,0
	18 x 2 x 1,5	26,0	705,4	1032,0
	20 x 2 x 1,5	27,2	773,9	1125,5
	2 x 2 x 2,5	13,1	140,8	220,5
	3 x 2 x 2,5	13,9	191,9	285,0
	4 x 2 x 2,5	15,4	245,8	362,5
	5 x 2 x 2,5	17,1	320,7	454,5
	6 x 2 x 2,5	19,2	400,0	568,5
	7 x 2 x 2,5	19,2	447,9	626,5
	8 x 2 x 2,5	20,4	505,0	700,5
	10 x 2 x 2,5	23,5	620,7	873,5
	12 x 2 x 2,5	24,6	724,3	1004,5

Other cross-sections and pair counts available upon request.

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.

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 inner sheath offers enhanced protection against mechanical damage.

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 and DIN VDE 0295,
- 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, coverage bigger than 80%,
- 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 wire braid shield of coverage bigger than 80%.

TECHNOFLEKS LIYYCY 300/500 V

TECHNOFLEKS LIYYCYżo 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	5,6	16,8	48,6
	2 x 0,5	7,4	27,5	79,6
	3 x 0,5	7,6	34,2	90,1
	4 x 0,5	8,1	39,6	101,3
	5 x 0,5	8,6	46,6	116,4
	6 x 0,5	9,1	52,7	130,7
	7 x 0,5	9,1	57,5	134,6
	8 x 0,5	10,6	66,0	172,5
	10 x 0,5	11,4	85,3	196,2
	12 x 0,5	11,6	97,4	214,6
	16 x 0,5	12,6	119,1	256,0
	27 x 0,5	15,9	202,9	408,6
	37 x 0,5	17,4	259,0	503,5
	40 x 0,5	17,9	276,3	533,5
	1 x 0,75	5,9	21,3	56,0
	2 x 0,75	7,9	34,2	93,3
	3 x 0,75	8,2	42,5	105,9
	4 x 0,75	8,7	51,4	121,7
	5 x 0,75	9,3	60,5	140,4
	6 x 0,75	10,3	69,8	169,0
	7 x 0,75	10,3	77,0	174,7
	8 x 0,75	11,6	95,9	219,2
	10 x 0,75	12,4	113,6	241,0
	12 x 0,75	12,7	129,5	264,4
	16 x 0,75	13,8	162,7	320,7
	37 x 0,75	19,8	380,8	681,8
	1 x 1,0	6,0	23,8	59,5
	2 x 1,0	8,1	39,7	101,5
	3 x 1,0	8,4	51,4	117,6
	4 x 1,0	8,9	61,9	135,3

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	5 x 1,0	9,6	73,4	157,1
	6 x 1,0	10,6	85,2	189,1
	7 x 1,0	10,6	94,8	196,9
	8 x 1,0	12,0	116,6	246,2
	10 x 1,0	12,8	140,2	273,6
	12 x 1,0	13,1	160,0	301,3
	16 x 1,0	14,5	203,2	375,6
	37 x 1,0	20,5	475,0	790,2
	1 x 1,5	6,5	29,5	71,6
	2 x 1,5	9,1	52,7	129,6
	3 x 1,5	9,5	68,6	151,4
	4 x 1,5	10,6	85,2	187,0
	5 x 1,5	11,4	111,8	228,2
	6 x 1,5	12,2	127,3	259,2
	7 x 1,5	12,2	141,7	270,5
	8 x 1,5	13,8	162,7	330,0
	10 x 1,5	15,6	215,1	405,4
	12 x 1,5	16,0	246,1	447,3
	16 x 1,5	17,4	312,5	548,8
	27 x 1,5	21,8	518,1	860,2
	1 x 2,5	6,9	41,0	87,8
	2 x 2,5	10,3	74,6	172,9
	3 x 2,5	10,7	99,9	205,0
	4 x 2,5	11,6	135,8	252,4
	5 x 2,5	12,5	161,9	296,3
	6 x 2,5	13,4	189,8	342,5
	7 x 2,5	13,4	213,8	361,4
	8 x 2,5	16,0	265,9	481,7
	10 x 2,5	17,2	320,1	538,7
	12 x 2,5	17,7	370,8	601,7

Other cross-sections and conductor counts available upon request.

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.

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 inner sheath offers enhanced protection against mechanical damage.

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 and DIN VDE 0295,
- 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, coverage bigger than 80%,
- PVC cable sheath, grey RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

TECHNOFLEKS LiYYSY-Nr 300/500 V and **TECHNOFLEKS LiYYSYżo-Nr 300/500 V** – cables of enhanced protection against mechanical damage, shielded with zinc-plated wire braid shield of coverage bigger than 80%.

TECHNOFLEKS LiYYCY-Nr 300/500 V

TECHNOFLEKS LiYYCYżo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	1 x 0,5	5,6	16,8	48,6		7 x 1,0	10,6	94,8	196,9
	2 x 0,5	7,4	27,5	79,6		8 x 1,0	12,0	116,6	246,2
	3 x 0,5	7,6	34,2	90,1		10 x 1,0	12,8	140,2	273,6
	4 x 0,5	8,1	39,6	101,3		12 x 1,0	13,1	160,0	301,3
	5 x 0,5	8,6	46,6	116,4		16 x 1,0	14,5	203,2	375,6
	6 x 0,5	9,1	52,7	130,7		25 x 1,0	17,8	323,5	564,4
	7 x 0,5	9,1	57,5	134,6		27 x 1,0	18,1	344,4	593,4
	8 x 0,5	10,6	66,0	172,5		37 x 1,0	20,5	475,0	790,2
	10 x 0,5	11,4	85,3	196,2					
	12 x 0,5	11,6	97,4	214,6		1 x 1,5	6,5	29,5	71,6
	16 x 0,5	12,6	119,1	256,0		2 x 1,5	9,1	52,7	129,6
	25 x 0,5	15,6	191,6	390,6		3 x 1,5	9,5	68,6	151,4
	27 x 0,5	15,9	202,9	408,6		4 x 1,5	10,6	85,2	187,0
						5 x 1,5	11,4	111,8	228,2
	1 x 0,75	5,9	21,3	56,0		6 x 1,5	12,2	127,3	259,2
	2 x 0,75	7,9	34,2	93,3		7 x 1,5	12,2	141,7	270,5
	3 x 0,75	8,2	42,5	105,9		8 x 1,5	13,8	162,7	330,0
	4 x 0,75	8,7	51,4	121,7		10 x 1,5	15,6	215,1	405,4
	5 x 0,75	9,3	60,5	140,4		12 x 1,5	16,0	246,1	447,3
	6 x 0,75	10,3	69,8	169,0		16 x 1,5	17,4	312,5	548,8
	7 x 0,75	10,3	77,0	174,7		25 x 1,5	21,4	486,2	816,8
	8 x 0,75	11,6	95,9	219,2		27 x 1,5	21,8	518,1	860,2
	10 x 0,75	12,4	113,6	241,0					
	12 x 0,75	12,7	129,5	264,4		1 x 2,5	6,9	41,0	87,8
	16 x 0,75	13,8	162,7	320,7		2 x 2,5	10,3	74,6	172,9
	25 x 0,75	17,2	260,1	489,9		3 x 2,5	10,7	99,9	205,0
	27 x 0,75	17,5	276,5	514,1		4 x 2,5	11,6	135,8	252,4
						5 x 2,5	12,5	161,9	296,3
	1 x 1,0	6,0	23,8	59,5		6 x 2,5	13,4	189,8	342,5
	2 x 1,0	8,1	39,7	101,5		7 x 2,5	13,4	213,8	361,4
	3 x 1,0	8,4	51,4	117,6		8 x 2,5	16,0	265,9	481,7
	4 x 1,0	8,9	61,9	135,3		10 x 2,5	17,2	320,1	538,7
	5 x 1,0	9,6	73,4	157,1		12 x 2,5	17,7	370,8	601,7
	6 x 1,0	10,6	85,2	189,1		16 x 2,5	19,9	499,4	788,8

Other cross-sections and conductor counts available upon request.

YStY
YStYžo**CONTROL AND POWER SUPPLY FLEXIBLE CABLES****APPLICATIONS**

YStY 300/500 V and **YStYžo 300/500 V** are flexible cables intended for control, protection and monitoring systems or power supply, all in power engineering, also 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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in YStYžo-300/500 V cable,
- insulated conductors laid-up in layers - green-yellow protective conductor located in the outer layer in YStYžo 300/500 V cable,
- cable core wrapped in polyester tape,
- black PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

YStY-O 300/500 V and **YStYžo-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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YStY
YStYżo
CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	WT-91/K-376

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

YStY 300/500 V

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.2.774	2 x 1,0	6,6	19,2	65,0
7.2.776	4 x 1,0	7,6	38,4	96,5
7.2.789	2 x 2,5	8,8	48,0	127,0

YStYżo 300/500 V

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.2.786	4 x 0,50	6,8	19,2	67,5
7.2.787	24 x 0,50	15,8	115,2	333,5
7.2.791	3 x 0,75	6,8	21,6	69,9
7.2.793	4 x 0,75	7,4	28,8	84,4
7.2.792	5 x 0,75	8,5	36,0	110,5
7.2.794	10 x 0,75	12,0	72,0	199,0
7.2.775	3 x 1,0	7,0	28,8	80,0
7.2.776	4 x 1,0	7,6	38,4	96,5
7.2.781	5 x 1,0	8,8	48,0	125,0
7.2.783	12 x 1,0	12,8	115,2	260,0
7.2.784	3 x 1,50	7,6	43,5	101,0
7.2.788	5 x 1,50	9,6	72,5	162,0
7.2.782	7 x 1,50	10,8	101,5	209,0
7.2.790	10 x 1,50	13,6	145,0	292,0

Other cross-sections and conductor counts available on request.

YStYekw
YStYekwżo**CONTROL AND POWER FLEXIBLE CABLES****APPLICATIONS**

YStYekw and **YStYekwżo** are flexible control cables designed for dry and wet 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 inner cable sheath enhances cable protection against mechanical damage.

The cables are protected by an overall electrostatic shield against external electromagnetic interferences. The shield also decreases emission of interferences out of the cable.

The cable is suitable for fixed and movable indoor 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 and DIN VDE 0295,
- 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 cable,
- grey inner PVC cable sheath RAL 7001,
- tinned copper wire braid shield, coverage bigger than 80%,
- grey PVC cable sheath RAL 7001, other colours also available.

AVAILABLE UPON REQUEST

YStYekw-O and **YStYekwżo-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 PN-EN 60811-2-1 standard.

YStYekw
YStYekwžo

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed installations	from -30 to +80°C
Voltage test	3.0 kV rms	for movable installations	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
in short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-91/K-363

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	3 x 0.75	9.0	49.7	126.0
	4 x 0.75	10.2	59.8	158.0
	5 x 0.75	10.9	71.4	184.0
	8 x 0.75	13.1	101.9	254.0
	3 x 1.0	9.4	59.8	137.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 1.0	10.4	70.7	171.5
	2 x 1.5	9.6	59.9	144.5
	3 x 1.5	10.4	75.5	175.5
	4 x 1.5	11.2	93.1	206.0
	5 x 1.5	12.0	111.9	240.5

Other cross-sections and conductor counts are available upon request.

TECHNOKONTROL YKSLY 300/500 V
TECHNOKONTROL YKSLYżo 300/500 V**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**

**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, also 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.

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

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 and DIN VDE 0295,
- 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

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

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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLY 300/500 V

TECHNOKONTROL YKSLYżo 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,5	5,4	9,6	37,1
	3 x 0,5	5,6	14,4	42,5
	4 x 0,5	6,1	19,2	51,6
	5 x 0,5	6,6	24,0	62,5
	6 x 0,5	7,1	28,8	73,8
	7 x 0,5	7,1	33,6	77,7
	8 x 0,5	8,2	38,4	98,1
	10 x 0,5	8,9	48,0	106,9
	12 x 0,5	9,1	57,6	122,4
	16 x 0,5	10,5	76,8	166,4
	21 x 0,5	11,5	100,8	206,4
	25 x 0,5	12,7	120,0	241,7
	37 x 0,5	14,7	177,6	344,2
	40 x 0,5	15,2	192,0	368,8
	2 x 0,75	5,9	14,4	46,4
	3 x 0,75	6,2	21,6	53,4
	4 x 0,75	6,7	28,8	65,6
	5 x 0,75	7,3	36,0	80,6
	6 x 0,75	7,9	43,2	95,4
	7 x 0,75	7,9	50,4	101,0
	8 x 0,75	9,1	57,6	127,9
	10 x 0,75	10,3	72,0	149,2
	12 x 0,75	10,6	86,4	170,9
	16 x 0,75	11,7	115,2	219,2
	21 x 0,75	12,9	151,2	273,9
	25 x 0,75	14,5	180,0	328,2
	37 x 0,75	16,5	266,4	460,5
	40 x 0,75	17,1	288,0	494,1
	2 x 1,0	6,1	19,2	52,7
	3 x 1,0	6,4	28,8	61,9
	4 x 1,0	7,0	38,4	76,8
	5 x 1,0	7,6	48,0	94,6
	6 x 1,0	8,2	57,6	112,3

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 1,0	8,2	67,2	120,1
	8 x 1,0	9,5	76,8	151,0
	10 x 1,0	10,7	96,0	176,7
	12 x 1,0	11,0	115,2	203,8
	16 x 1,0	12,2	153,6	262,5
	21 x 1,0	13,4	201,6	330,0
	25 x 1,0	15,1	240,0	395,1
	37 x 1,0	17,2	355,2	558,5
	40 x 1,0	17,8	384,0	600,2
	2 x 1,5	7,1	28,8	71,8
	3 x 1,5	7,5	43,2	84,9
	4 x 1,5	8,2	57,6	106,4
	5 x 1,5	8,9	72,0	132,2
	6 x 1,5	9,7	86,4	157,9
	7 x 1,5	9,7	100,8	169,2
	8 x 1,5	11,7	115,2	224,8
	10 x 1,5	12,7	144,0	248,2
	12 x 1,5	13,1	172,8	287,7
	16 x 1,5	14,7	230,4	380,4
	21 x 1,5	16,3	302,4	479,2
	25 x 1,5	18,1	360,0	564,3
	37 x 1,5	21,1	532,8	823,1
	40 x 1,5	21,9	576,0	884,3
	2 x 2,5	7,9	48,0	97,9
	3 x 2,5	8,4	72,0	119,0
	4 x 2,5	9,1	96,0	151,4
	5 x 2,5	10,4	120,0	198,2
	6 x 2,5	11,3	144,0	236,9
	7 x 2,5	11,3	168,0	255,9
	8 x 2,5	13,1	192,0	320,1
	10 x 2,5	14,5	240,0	364,9
	12 x 2,5	15,0	288,0	425,3
	16 x 2,5	16,6	384,0	555,0

Other cross-sections and conductor counts available on request.

TECHNOKONTROL YKSLY-Nr 300/500 V
TECHNOKONTROL YKSLYżo-Nr 300/500 V**CONTROL AND POWER SUPPLY FLEXIBLE CABLES****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, also 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.

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

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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in **TECHNOKONTROL YKSLYżo-Nr 300/500 V** cable,
- 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

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

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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLY-Nr 300/500 V

TECHNOKONTROL YKSLYżo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	from - 30 to + 80°C
Voltage test	3.0 kV rms	for fixed equipment	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,5	5,4	9,6	37,1
	3 x 0,5	5,6	14,4	42,5
	4 x 0,5	6,1	19,2	51,6
	5 x 0,5	6,6	24,0	62,5
	6 x 0,5	7,1	28,8	73,8
	7 x 0,5	7,1	33,6	77,7
	8 x 0,5	8,2	38,4	98,1
	10 x 0,5	8,9	48,0	106,9
	12 x 0,5	9,1	57,6	122,4
	16 x 0,5	10,5	76,8	166,4
	21 x 0,5	11,5	100,8	206,4
	25 x 0,5	12,7	120,0	241,7
	37 x 0,5	14,7	177,6	344,2
	40 x 0,5	15,2	192,0	368,8
	2 x 0,75	5,9	14,4	46,4
	3 x 0,75	6,2	21,6	53,4
	4 x 0,75	6,7	28,8	65,6
	5 x 0,75	7,3	36,0	80,6
	6 x 0,75	7,9	43,2	95,4
	7 x 0,75	7,9	50,4	101,0
	8 x 0,75	9,1	57,6	127,9
	10 x 0,75	10,3	72,0	149,2
	12 x 0,75	10,6	86,4	170,9
	16 x 0,75	11,7	115,2	219,2
	21 x 0,75	12,9	151,2	273,9
	25 x 0,75	14,5	180,0	328,2
	40 x 0,75	17,1	288,0	494,1
	2 x 1,0	6,1	19,2	52,7
	3 x 1,0	6,4	28,8	61,9
	4 x 1,0	7,0	38,4	76,8
	5 x 1,0	7,6	48,0	94,6
	6 x 1,0	8,2	57,6	112,3
	7 x 1,0	8,2	67,2	120,1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	8 x 1,0	9,5	76,8	151,0
	10 x 1,0	10,7	96,0	176,7
	12 x 1,0	11,0	115,2	203,8
	16 x 1,0	12,2	153,6	262,5
	21 x 1,0	13,4	201,6	330,0
	25 x 1,0	15,1	240,0	395,1
	32 x 1,0	16,3	307,2	490,1
	34 x 1,0	16,7	326,4	520,2
	37 x 1,0	17,2	355,2	558,5
	40 x 1,0	17,8	384,0	600,2
	2 x 1,5	7,1	28,8	71,8
	3 x 1,5	7,5	43,2	84,9
	4 x 1,5	8,2	57,6	106,4
	5 x 1,5	8,9	72,0	132,2
	6 x 1,5	9,7	86,4	157,9
	7 x 1,5	9,7	100,8	169,2
	8 x 1,5	11,7	115,2	224,8
	10 x 1,5	12,7	144,0	248,2
	12 x 1,5	13,1	172,8	287,7
	16 x 1,5	14,7	230,4	380,4
	21 x 1,5	16,3	302,4	479,2
	25 x 1,5	18,1	360,0	564,3
	37 x 1,5	21,1	532,8	823,1
	2 x 2,5	7,9	48,0	97,9
	3 x 2,5	8,4	72,0	119,0
	4 x 2,5	9,1	96,0	151,4
	5 x 2,5	10,4	120,0	198,2
	6 x 2,5	11,3	144,0	236,9
	7 x 2,5	11,3	168,0	255,9
	8 x 2,5	13,1	192,0	320,1
	10 x 2,5	14,5	240,0	364,9
	12 x 2,5	15,0	288,0	425,3
	16 x 2,5	16,6	384,0	555,0

Other cross-sections and conductor counts available on request.

TECHNOKONTROL YKSLY-P 300/500 V
TECHNOKONTROL YKSLY-P-Nr 300/500 V**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**

**APPLICATIONS**

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

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

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

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

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 and DIN VDE 0295,
- 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

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

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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLY-P 300/500 V

TECHNOKONTROL YKSLY-P-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-17

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
7.3.164	2 x 2 x 0,5	7,8	19,2	59,0					
7.3.165	3 x 2 x 0,5	8,3	28,8	75,5	7.3.207	2 x 2 x 1,0	9,0	38,8	86,0
7.3.166	4 x 2 x 0,5	9,0	38,4	93,2	7.3.208	3 x 2 x 1,0	9,6	57,6	113,5
7.3.167	5 x 2 x 0,5	10,3	48,0	121,0	7.3.209	4 x 2 x 1,0	10,9	76,8	153,0
7.3.168	6 x 2 x 0,5	11,2	57,6	140,0	7.3.210	5 x 2 x 1,0	12,0	97,0	183,5
7.3.169	7 x 2 x 0,5	11,2	67,2	154,5	7.3.212	7 x 2 x 1,0	13,0	134,4	239,5
7.3.170	8 x 2 x 0,5	11,9	76,8	172,5	7.3.214	10 x 2 x 1,0	15,9	192,0	337,0
7.3.171	10 x 2 x 0,5	13,4	96,0	209,5	7.3.215	12 x 2 x 1,0	16,7	232,8	392,0
7.3.172	12 x 2 x 0,5	14,1	115,2	241,5	7.3.216	14 x 2 x 1,0	17,8	268,8	449,0
7.3.173	14 x 2 x 0,5	15,2	134,4	282,5	7.3.217	16 x 2 x 1,0	19,3	307,2	523,0
7.3.174	16 x 2 x 0,5	16,1	153,6	316,5	7.3.218	18 x 2 x 1,0	20,3	345,6	580,0
7.3.175	18 x 2 x 0,5	16,9	172,8	349,5	7.3.219	20 x 2 x 1,0	21,2	384,0	637,0
7.3.176	20 x 2 x 0,5	17,7	192,0	383,0	7.3.220	24 x 2 x 1,0	23,4	460,8	771,0
7.3.177	24 x 2 x 0,5	19,5	230,4	467,0					
7.3.178	25 x 2 x 0,5	19,9	240,0	483,5	7.3.226	2 x 2 x 1,5	11,1	57,6	128,0
7.3.179	27 x 2 x 0,5	20,5	259,2	517,0	7.3.227	3 x 2 x 1,5	11,8	86,4	168,5
7.3.180	30 x 2 x 0,5	21,5	288,0	566,5	7.3.228	4 x 2 x 1,5	13,0	115,2	212,5
7.3.181	31 x 2 x 0,5	21,8	297,6	583,0	7.3.229	5 x 2 x 1,5	14,5	144,0	263,5
7.3.182	33 x 2 x 0,5	22,4	316,8	616,0	7.3.231	7 x 2 x 1,5	15,8	201,6	345,5
					7.3.233	10 x 2 x 1,5	19,5	288,0	495,0
7.3.187	2 x 2 x 0,75	8,7	28,8	74,5	7.3.234	12 x 2 x 1,5	20,5	345,6	576,0
7.3.188	3 x 2 x 0,75	9,2	43,2	97,0	7.3.235	14 x 2 x 1,5	21,9	403,2	660,0
7.3.189	4 x 2 x 0,75	10,5	57,6	130,5	7.3.236	16 x 2 x 1,5	23,6	460,8	765,0
7.3.190	5 x 2 x 0,75	11,5	72,0	156,0	7.3.238	20 x 2 x 1,5	26,0	576,0	933,5
7.3.192	7 x 2 x 0,75	12,5	100,8	201,5					
7.3.193	8 x 2 x 0,75	13,3	115,2	225,5	7.3.242	2 x 2 x 2,5	12,5	96,0	176,0
7.3.194	10 x 2 x 0,75	15,3	144,0	282,5	7.3.243	3 x 2 x 2,5	13,3	144,0	237,5
7.3.195	12 x 2 x 0,75	16,0	172,8	327,0	7.3.244	4 x 2 x 2,5	14,8	192,0	309,0
7.3.197	16 x 2 x 0,75	18,1	230,4	419,5	7.3.245	5 x 2 x 2,5	16,3	240,0	376,0
7.3.198	18 x 2 x 0,75	19,4	259,2	483,0	7.3.247	7 x 2 x 2,5	17,8	336,0	499,5
7.3.199	20 x 2 x 0,75	20,3	288,0	529,5	7.3.249	10 x 2 x 2,5	22,1	480,0	715,0
7.3.200	24 x 2 x 0,75	22,0	345,6	621,0	7.3.250	12 x 2 x 2,5	23,6	576,0	859,5
7.3.201	25 x 2 x 0,75	22,4	360,0	643,5	7.3.251	14 x 2 x 2,5	25,2	672,0	987,5
7.3.202	27 x 2 x 0,75	23,6	388,8	711,0	7.3.252	16 x 2 x 2,5	26,7	768,0	1115,5

Other cross-sections and pair counts are available upon request.

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, also 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.

An overall electrostatic shield protects cable circuits against interference by external electric fields and prevents emission of interferences produced in the cables.

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

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 and DIN VDE 0295,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLYekw 300/500 V

TECHNOKONTROL YKSLYekwżo 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.0 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,5	5,5	11,9	41,4
	3 x 0,5	5,7	16,7	46,5
	4 x 0,5	6,2	21,5	55,6
	5 x 0,5	6,7	26,3	67,1
	6 x 0,5	7,2	31,1	78,1
	7 x 0,5	7,2	35,9	82,0
	8 x 0,5	8,3	40,7	102,9
	10 x 0,5	9,0	50,3	111,5
	12 x 0,5	9,2	59,9	127,0
	16 x 0,5	10,6	79,1	171,7
	21 x 0,5	11,6	103,1	211,5
	25 x 0,5	12,8	122,3	247,0
	34 x 0,5	14,2	165,5	320,9
	37 x 0,5	14,8	179,9	349,8
	40 x 0,5	15,3	194,3	375,0
	2 x 0,75	6,0	19,1	52,7
	3 x 0,75	6,3	26,3	59,8
	4 x 0,75	6,8	33,5	72,6
	5 x 0,75	7,4	40,7	87,2
	6 x 0,75	8,0	47,9	102,0
	7 x 0,75	8,0	55,1	107,7
	8 x 0,75	9,2	62,3	134,9
	10 x 0,75	10,4	76,7	156,9
	12 x 0,75	10,7	91,1	178,6
	16 x 0,75	11,8	119,9	227,2
	21 x 0,75	13,0	155,9	281,6
	25 x 0,75	14,6	184,7	336,3
	37 x 0,75	16,6	271,1	468,9
	40 x 0,75	17,2	292,7	503,1
	2 x 1,0	6,2	23,9	59,1
	3 x 1,0	6,5	33,5	68,9
	4 x 1,0	7,1	43,1	83,8

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	5 x 1,0	7,7	52,7	101,3
	6 x 1,0	8,3	62,3	119,6
	7 x 1,0	8,3	71,9	127,3
	8 x 1,0	9,6	81,5	157,9
	10 x 1,0	10,8	100,7	184,3
	12 x 1,0	11,1	119,9	211,2
	16 x 1,0	12,3	158,3	270,5
	21 x 1,0	13,5	206,3	338,3
	25 x 1,0	15,2	244,7	403,7
	37 x 1,0	17,3	359,9	567,4
	2 x 1,5	7,2	35,8	80,9
	3 x 1,5	7,6	50,2	93,9
	4 x 1,5	8,3	64,6	116,0
	5 x 1,5	9,0	79,0	141,5
	6 x 1,5	9,8	93,4	167,8
	7 x 1,5	9,8	107,8	179,1
	8 x 1,5	11,8	122,2	235,1
	10 x 1,5	12,8	151,0	258,2
	12 x 1,5	13,2	179,8	297,7
	16 x 1,5	14,8	237,4	390,8
	21 x 1,5	16,4	309,4	489,9
	25 x 1,5	18,2	367,0	575,4
	37 x 1,5	21,2	539,8	834,8
	2 x 2,5	8,0	55,0	106,9
	3 x 2,5	8,5	79,0	128,6
	4 x 2,5	9,2	103,0	160,7
	5 x 2,5	10,5	127,0	208,2
	6 x 2,5	11,4	151,0	246,6
	7 x 2,5	11,4	175,0	265,6
	8 x 2,5	13,2	199,0	330,2
	10 x 2,5	14,6	247,0	375,3
	12 x 2,5	15,1	295,0	435,7

Other cross-sections and conductor counts available on request.

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, also 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.

An overall electrostatic shield protects cable circuits against interference by external electric fields and prevents emission of interferences produced in the cables.

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

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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in TECHNOKONTROL YKSLYekwżo-Nr 300/500 V cable,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLYekw-Nr 300/500 V

TECHNOKONTROL YKSLYekwżo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	from - 30 to + 80°C
Voltage test	3.0 kV rms	for fixed equipment	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,5	5,5	11,9	41,4
	3 x 0,5	5,7	16,7	46,5
	4 x 0,5	6,2	21,5	55,6
	5 x 0,5	6,7	26,3	67,1
	6 x 0,5	7,2	31,1	78,1
	7 x 0,5	7,2	35,9	82,0
	8 x 0,5	8,3	40,7	102,9
	10 x 0,5	9,0	50,3	111,5
	12 x 0,5	9,2	59,9	127,0
	16 x 0,5	10,6	79,1	171,7
	21 x 0,5	11,6	103,1	211,5
	25 x 0,5	12,8	122,3	247,0
	37 x 0,5	14,8	179,9	349,8
	40 x 0,5	15,3	194,3	375,0
	2 x 0,75	6,0	19,1	52,7
	3 x 0,75	6,3	26,3	59,8
	4 x 0,75	6,8	33,5	72,6
	5 x 0,75	7,4	40,7	87,2
	6 x 0,75	8,0	47,9	102,0
	7 x 0,75	8,0	55,1	107,7
	8 x 0,75	9,2	62,3	134,9
	10 x 0,75	10,4	76,7	156,9
	12 x 0,75	10,7	91,1	178,6
	16 x 0,75	11,8	119,9	227,2
	21 x 0,75	13,0	155,9	281,6
	25 x 0,75	14,6	184,7	336,3
	37 x 0,75	16,6	271,1	468,9
	40 x 0,75	17,2	292,7	503,1
	2 x 1,0	6,2	23,9	59,1
	3 x 1,0	6,5	33,5	68,9
	4 x 1,0	7,1	43,1	83,8
	5 x 1,0	7,7	52,7	101,3
	6 x 1,0	8,3	62,3	119,6

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 1,0	8,3	71,9	127,3
	8 x 1,0	9,6	81,5	157,9
	10 x 1,0	10,8	100,7	184,3
	12 x 1,0	11,1	119,9	211,2
	16 x 1,0	12,3	158,3	270,5
	21 x 1,0	13,5	206,3	338,3
	25 x 1,0	15,2	244,7	403,7
	37 x 1,0	17,3	359,9	567,4
	40 x 1,0	17,9	388,7	608,9
	2 x 1,5	7,2	35,8	80,9
	3 x 1,5	7,6	50,2	93,9
	4 x 1,5	8,3	64,6	116,0
	5 x 1,5	9,0	79,0	141,5
	6 x 1,5	9,8	93,4	167,8
	7 x 1,5	9,8	107,8	179,1
	8 x 1,5	11,8	122,2	235,1
	10 x 1,5	12,8	151,0	258,2
	12 x 1,5	13,2	179,8	297,7
	16 x 1,5	14,8	237,4	390,8
	21 x 1,5	16,4	309,4	489,9
	25 x 1,5	18,2	367,0	575,4
	37 x 1,5	21,2	539,8	834,8
	40 x 1,5	22,0	583,0	896,1
	2 x 2,5	8,0	55,0	106,9
	3 x 2,5	8,5	79,0	128,6
	4 x 2,5	9,2	103,0	160,7
	5 x 2,5	10,5	127,0	208,2
	6 x 2,5	11,4	151,0	246,6
	7 x 2,5	11,4	175,0	265,6
	8 x 2,5	13,2	199,0	330,2
	10 x 2,5	14,6	247,0	375,3
	12 x 2,5	15,1	295,0	435,7
	16 x 2,5	16,7	391,0	565,7

Other cross-sections and conductor counts available on request.

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 intended for control, protection and monitoring systems or power supply, all in power engineering.

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

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

An overall electrostatic shield protects cable circuits against interference by external electric fields.

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

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 and DIN VDE 0295,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLYekw-P 300/500 V

TECHNOKONTROL YKSLYekw-P-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 V rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable equipment	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-17

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.5.166	2 x 2 x 0,5	7,9	21,8	63,5
7.5.167	3 x 2 x 0,5	8,4	31,8	80,5
7.5.168	4 x 2 x 0,5	9,1	41,1	98,0
7.5.169	5 x 2 x 0,5	10,4	50,8	126,0
7.5.170	6 x 2 x 0,5	11,3	60,5	145,0
7.5.171	7 x 2 x 0,5	11,3	70,2	159,5
7.5.172	8 x 2 x 0,5	12,0	79,9	178,0
7.5.173	10 x 2 x 0,5	13,5	99,2	215,5
7.5.174	12 x 2 x 0,5	14,2	118,6	247,1
7.5.175	14 x 2 x 0,5	15,3	137,9	288,5
7.5.176	16 x 2 x 0,5	16,2	157,3	322,5
7.5.177	18 x 2 x 0,5	17,0	176,6	356,5
7.5.178	20 x 2 x 0,5	17,8	196,0	389,5
7.5.179	24 x 2 x 0,5	19,6	234,7	474,0
7.5.180	25 x 2 x 0,5	20,0	244,4	490,5
7.5.182	30 x 2 x 0,5	21,6	292,8	573,5
7.5.183	31 x 2 x 0,5	21,9	302,5	590,0
7.5.184	33 x 2 x 0,5	22,5	321,8	623,5
7.5.185	2 x 2 x 0,75	8,8	33,9	81,5
7.5.189	3 x 2 x 0,75	9,3	48,5	104,0
7.5.190	4 x 2 x 0,75	10,6	63,0	138,0
7.5.191	5 x 2 x 0,75	11,6	77,5	163,0
7.5.193	7 x 2 x 0,75	12,6	106,6	209,0
7.5.195	10 x 2 x 0,75	15,4	150,2	291,0
7.5.196	12 x 2 x 0,75	16,1	179,3	335,5
7.5.197	14 x 2 x 0,75	17,2	208,4	382,5
7.5.198	16 x 2 x 0,75	18,2	237,4	428,0
7.5.201	24 x 2 x 0,75	22,1	353,8	631,0
7.5.203	27 x 2 x 0,75	23,7	397,4	720,5

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.5.208	2 x 2 x 1,0	8,9	43,6	93,0
7.5.209	3 x 2 x 1,0	9,5	63,0	120,5
7.5.210	4 x 2 x 1,0	10,6	82,4	160,5
7.5.211	5 x 2 x 1,0	11,7	101,8	191,5
7.5.213	7 x 2 x 1,0	12,9	140,6	247,5
7.5.214	10 x 2 x 1,0	16,0	198,8	345,5
7.5.216	12 x 2 x 1,0	16,8	237,6	400,5
7.5.217	14 x 2 x 1,0	17,9	276,4	457,5
7.5.218	16 x 2 x 1,0	19,4	315,2	532,0
7.5.221	24 x 2 x 1,0	23,5	470,4	780,5
7.5.226	2 x 2 x 1,5	11,2	64,6	137,5
7.5.227	3 x 2 x 1,5	11,9	93,4	179,0
7.5.228	4 x 2 x 1,5	13,1	122,2	222,5
7.5.229	5 x 2 x 1,5	14,6	151,0	273,5
7.5.231	7 x 2 x 1,5	15,9	208,6	356,5
7.5.233	10 x 2 x 1,5	19,6	295,0	506,5
7.5.234	12 x 2 x 1,5	20,6	352,6	587,5
7.5.235	14 x 2 x 1,5	22,0	410,2	671,5
7.5.236	16 x 2 x 1,5	23,7	467,8	777,5
7.5.238	20 x 2 x 1,5	26,1	583,0	946,5
7.5.245	2 x 2 x 2,5	12,6	103,0	186,0
7.5.246	3 x 2 x 2,5	13,4	151,0	248,0
7.5.247	4 x 2 x 2,5	14,9	199,0	319,5
7.5.248	5 x 2 x 2,5	16,4	247,0	386,0
7.5.250	7 x 2 x 2,5	17,9	343,0	510,5
7.5.252	10 x 2 x 2,5	22,2	487,0	727,5
7.5.253	12 x 2 x 2,5	23,7	583,0	871,5
7.5.254	14 x 2 x 2,5	25,3	679,0	1000,5
7.5.255	16 x 2 x 2,5	26,8	775,0	1127,5

Other cross-sections and pair counts available on request.

TECHNOKONTROL YKSLYekpekwn 300/500 V
TECHNOKONTROL YKSLYekpekwn-Nr 300/500 V

CONTROL AND POWER FLEXIBLE CABLES**APPLICATIONS**

TECHNOKONTROL YKSLYekpekwn 300/500 V and **TECHNOKONTROL YKSLYekpekwn-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 fixed and movable indoor 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 and DIN VDE 0295,
- PVC insulation - identification colour code according to IEC 60189-2 (compatible with PN-92/T-90321) in **TECHNOKONTROL YKSLYekpekwn 300/500 V** cables or black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLYekpekwn-Nr 300/500 V** cable,
- insulated conductors stranded into pairs,
- pair electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded 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 stranded annealed tinned copper drain wire,
- black PVC cable sheath RAL 9005, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YKSLYekpekwn-O 300/500 V and **TECHNOKONTROL YKSLYekpekwn-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 PN-EN 60811-2-1 standard.

TECHNOKONTROL YKSLYekpek 300/500 V

TECHNOKONTROL YKSLYekpek-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	20 MΩ·km	for movable installations	from -5 to +70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-17

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	8.4	26.7	78.5
	3 x 2 x 0.5	8.9	38.8	101.0
	4 x 2 x 0.5	9.7	50.9	125.5
	5 x 2 x 0.5	11.1	63.0	160.0
	6 x 2 x 0.5	12.0	75.2	186.0
	8 x 2 x 0.5	12.8	99.4	230.5
	10 x 2 x 0.5	14.7	123.7	287.5
	12 x 2 x 0.5	15.4	147.0	333.0
	14 x 2 x 0.5	16.4	170.4	379.5
	16 x 2 x 0.5	17.3	196.5	426.5
	18 x 2 x 0.5	18.2	220.7	473.5
	24 x 2 x 0.5	21.1	293.5	629.5
	2 x 2 x 0.75	9.3	43.6	101.0
	3 x 2 x 0.75	10.2	63.0	142.0
	4 x 2 x 0.75	11.2	82.5	175.5
	5 x 2 x 0.75	12.3	101.9	210.5
	8 x 2 x 0.75	14.4	160.1	313.5
	10 x 2 x 0.75	16.4	198.9	382.5
	12 x 2 x 0.75	17.1	237.8	445.0
	16 x 2 x 0.75	19.8	315.4	591.5
	2 x 2 x 1.0	9.5	53.4	112.0
	3 x 2 x 1.0	10.6	77.7	159.5
	4 x 2 x 1.0	11.6	102.0	199.0
	5 x 2 x 1.0	12.8	126.3	239.5
	8 x 2 x 1.0	15.0	199.2	359.5
	10 x 2 x 1.0	17.0	247.8	439.0
	12 x 2 x 1.0	17.8	296.4	513.0
	2 x 2 x 1.5	11.8	78.7	166.5
	3 x 2 x 1.5	12.3	114.4	219.0
	4 x 2 x 1.5	13.7	150.2	276.5
	5 x 2 x 1.5	15.3	185.9	341.5
	8 x 2 x 1.5	17.7	293.1	506.0
	10 x 2 x 1.5	20.6	364.6	640.0
	2 x 2 x 2.5	13.1	116.9	216.0
	3 x 2 x 2.5	13.8	171.7	292.0
	4 x 2 x 2.5	15.5	226.5	378.0
	5 x 2 x 2.5	17.1	281.4	459.0
	8 x 2 x 2.5	20.3	447.9	708.5
	10 x 2 x 2.5	23.6	555.6	892.0

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLXS-Nr 300/500 V
TECHNOKONTROL YKSLXSžo-Nr 300/500 V**CONTROL AND POWER 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 fixed and movable indoor 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 and DIN VDE 0295,
- black cross-linked polyethylene (XLPE) insulation and conductor numbers printed for identification,
- insulated conductors laid-up in layers into a cable core, in **YKSLXSžo-Nr 300/500 V** cable a green-yellow protective conductor in the outer layer,
- cable core wrapped in a polyester tape,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXS-Nr 300/500 V and **TECHNOKONTROL HKSLXSžo-Nr 300/500 V** – halogen free 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.

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

TECHNOKONTROL YKSLXS-Nr 300/500 V

TECHNOKONTROL YKSLXSzo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	45	50	50	55	65

Operating voltage U ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	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 and IEC 60332-1
in short-circuit	+ 250°C		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 0.5	6.2	9.6	42.0		4 x 1.0	7.9	38.4	83.0
	3 x 0.5	6.5	14.4	48.0		5 x 1.0	8.7	48.0	102.0
	4 x 0.5	7.1	19.2	58.0		6 x 1.0	9.4	57.6	120.5
	5 x 0.5	7.7	24.0	70.0		7 x 1.0	9.4	67.2	128.5
	6 x 0.5	8.3	28.8	82.0		10 x 1.0	12.3	96.0	190.5
	7 x 0.5	8.3	33.6	86.5		12 x 1.0	12.7	115.2	218.5
	10 x 0.5	10.9	48.0	128.5		16 x 1.0	14.1	153.6	280.5
	12 x 0.5	11.2	57.6	145.5		20 x 1.0	15.4	192.0	344.0
	16 x 0.5	12.4	76.8	184.0		25 x 1.0	17.5	240.0	421.0
	20 x 0.5	13.4	96.0	218.5					
	25 x 0.5	15.3	120.0	273.0		2 x 1.5	7.5	28.8	70.7
	32 x 0.5	16.5	153.6	333.5		3 x 1.5	7.9	43.2	85.0
	34 x 0.5	17.0	163.2	353.0		4 x 1.5	8.7	57.6	106.5
	37 x 0.5	17.5	177.6	377.5		5 x 1.5	9.5	72.0	130.5
	44 x 0.5	20.0	211.2	461.5		6 x 1.5	10.7	86.4	165.0
						7 x 1.5	10.7	100.8	177.1
	2 x 0.75	6.7	14.4	51.0		10 x 1.5	13.5	144.0	246.0
	3 x 0.75	7.1	21.6	59.0		12 x 1.5	13.9	172.8	284.5
	4 x 0.75	7.7	28.8	72.0		16 x 1.5	15.7	230.4	375.0
	5 x 0.75	8.4	36.0	88.0		20 x 1.5	17.0	288.0	452.0
	6 x 0.75	9.1	43.2	103.5		25 x 1.5	19.7	360.0	573.5
	7 x 0.75	9.2	55.1	116.5					
	10 x 0.75	12.0	76.7	170.5		2 x 2.5	8.3	48.0	96.5
	12 x 0.75	12.4	91.1	193.5		3 x 2.5	8.8	72.0	119.0
	16 x 0.75	13.7	119.9	245.0		4 x 2.5	9.6	96.0	150.5
	20 x 0.75	15.0	148.7	297.5		5 x 2.5	10.9	120.0	196.0
	25 x 0.75	17.0	184.7	362.5		6 x 2.5	11.9	144.0	233.5
	32 x 0.75	18.3	235.1	443.5		7 x 2.5	11.9	168.0	253.4
	34 x 0.75	19.2	249.5	488.0		10 x 2.5	15.3	240.0	361.5
						12 x 2.5	15.8	288.0	420.5
	2 x 1.0	6.9	19.2	57.5		16 x 2.5	17.5	384.0	546.5
	3 x 1.0	7.3	28.8	67.5		20 x 2.5	19.5	480.0	681.5

Other cross-sections and conductor counts are available upon request.

TECHNOKONTROL YKSLXS-P-Nr 300/500 V**CONTROL AND POWER FLEXIBLE CABLES**

**APPLICATIONS**

TECHNOKONTROL YKSLXS-P-Nr 300/500 V is a multipair, overall shielded cable intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Mutual influence between signals transmitted along the cable and interferences from external sources are substantially reduced by the pair structure.

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 suitable for fixed and movable indoor 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 and DIN VDE 0295,
- cross-linked polyethylene (XLPE) insulation coloured black or brown and white pair numbers printed for identification,
- insulated conductors stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXS-P-Nr 300/500 V – halogen free 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.

TECHNOKONTROL YvKSLXS-P-Nr 300/500 V – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXS-P-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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	65

Operating voltage U ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	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 and IEC 60332-1
in short-circuit	+ 250°C		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	9.2	19.2	67.0		3 x 2 x 1.0	11.4	57.6	133.0
	3 x 2 x 0.5	9.7	28.8	85.0		4 x 2 x 1.0	12.6	76.8	165.5
	4 x 2 x 0.5	11.1	38.4	114.0		5 x 2 x 1.0	13.8	96.0	198.0
	5 x 2 x 0.5	12.1	48.0	135.0		8 x 2 x 1.0	16.3	153.6	296.0
	6 x 2 x 0.5	13.2	57.6	156.0		10 x 2 x 1.0	18.9	192.0	378.5
	8 x 2 x 0.5	14.1	76.8	191.5		12 x 2 x 1.0	19.8	230.4	436.5
	10 x 2 x 0.5	16.2	96.0	239.5		14 x 2 x 1.0	21.1	268.8	498.0
	12 x 2 x 0.5	17.0	115.2	274.5		16 x 2 x 1.0	22.4	307.2	558.0
	16 x 2 x 0.5	19.6	153.6	366.5		20 x 2 x 1.0	25.1	384.0	702.0
	18 x 2 x 0.5	20.6	172.8	404.0		24 x 2 x 1.0	27.2	460.8	822.0
	24 x 2 x 0.5	23.7	230.4	536.0					
	27 x 2 x 0.5	25.0	259.2	592.0		2 x 2 x 1.5	11.8	57.6	129.0
	30 x 2 x 0.5	26.2	288.0	646.5		3 x 2 x 1.5	12.5	86.4	169.0
	31 x 2 x 0.5	26.5	297.6	665.0		4 x 2 x 1.5	13.8	115.2	211.5
	33 x 2 x 0.5	27.3	316.8	701.0		5 x 2 x 1.5	15.4	144.0	262.0
						6 x 2 x 1.5	16.8	172.8	306.5
	2 x 2 x 0.75	10.5	28.8	92.0		8 x 2 x 1.5	17.9	230.4	384.5
	3 x 2 x 0.75	11.1	43.2	116.0		10 x 2 x 1.5	20.8	288.0	490.5
	4 x 2 x 0.75	12.1	57.6	143.0		12 x 2 x 1.5	21.8	345.6	569.0
	5 x 2 x 0.75	13.3	72.0	170.1		16 x 2 x 1.5	25.1	460.8	756.5
	8 x 2 x 0.75	15.7	115.2	252.0		20 x 2 x 1.5	27.7	576.0	920.5
	10 x 2 x 0.75	17.9	144.0	307.0					
	12 x 2 x 0.75	19.1	172.8	371.0		2 x 2 x 2.5	13.2	96.0	176.0
	16 x 2 x 0.75	21.6	230.4	472.0		3 x 2 x 2.5	14.0	144.0	236.5
	18 x 2 x 0.75	22.8	259.2	522.0		4 x 2 x 2.5	15.5	192.0	307.5
	20 x 2 x 0.75	24.2	288.0	593.5		5 x 2 x 2.5	17.2	240.0	372.5
	25 x 2 x 0.75	26.7	360.0	717.5		7 x 2 x 2.5	19.2	336.0	511.5
	27 x 2 x 0.75	27.6	388.0	767.0		10 x 2 x 2.5	23.8	480.0	729.5
	30 x 2 x 0.75					12 x 2 x 2.5	24.9	576.0	850.0
						14 x 2 x 2.5	26.6	672.0	975.5
	2 x 2 x 1.0	10.9	38.4	194.0		16 x 2 x 2.5	28.3	768.0	1100.0

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLXSekw-Nr 300/500 V
TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V**CONTROL AND POWER 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.

The cables are protected against interferences from external electric fields by means of an overall electrostatic shield.

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 fixed and movable indoor 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 and DIN VDE 0295,
- black cross-linked polyethylene (XLPE) insulation and white pair numbers printed for identification,
- insulated conductors laid-up in layers into a cable core, in **YKSLXSekwżo-Nr 300/500 V** cable a green-yellow protective conductor in the outer layer,
- cable core wrapped in a polyester tape,
- overall electrostatic shield, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXSekw-Nr 300/500 V and **TECHNOKONTROL HKSLXSekwżo-Nr 300/500 V** – halogen free 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.

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

TECHNOKONTROL YKSLXSekw-Nr 300/500 V

TECHNOKONTROL YKSLXSekwżo-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	50	55	60	65	70

Operating voltage U ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	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 and IEC 60332-1
in short-circuit	+ 250°C		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0.5	6.3	11.9	46.0
	3 x 0.5	6.6	16.7	52.0
	4 x 0.5	7.2	21.5	62.0
	5 x 0.5	7.8	26.3	74.0
	6 x 0.5	8.4	31.1	87.0
	7 x 0.5	8.4	35.9	91.0
	10 x 0.5	11.0	50.3	133.5
	12 x 0.5	11.3	59.9	150.5
	16 x 0.5	12.5	79.1	189.5
	20 x 0.5	13.5	98.3	224.0
	25 x 0.5	15.4	122.3	279.0
	32 x 0.5	16.6	155.9	339.5
	34 x 0.5	17.1	165.5	359.5
	37 x 0.5	17.6	179.9	383.5
	40 x 0.5	18.2	194.3	410.0
	2 x 0.75	6.8	19.1	57.5
	3 x 0.75	7.2	26.3	65.5
	4 x 0.75	7.8	33.5	78.5
	5 x 0.75	8.5	40.7	95.0
	6 x 0.75	9.2	47.9	110.5
	7 x 0.75	9.2	55.1	116.5
	10 x 0.75	12.0	76.7	170.5
	12 x 0.75	12.4	91.1	193.5
	16 x 0.75	13.7	119.9	245.0
	20 x 0.75	15.0	148.7	297.5
	25 x 0.75	17.0	184.7	362.5
	32 x 0.75	18.3	235.1	443.5
	34 x 0.75	19.2	249.5	488.0
	2 x 1.0	7.0	23.9	64.0
	3 x 1.0	7.4	33.5	74.0

Product No.	Number of conductors conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 1.0	8.0	43.1	90.0
	5 x 1.0	8.8	52.7	109.0
	6 x 1.0	9.5	62.3	127.5
	7 x 1.0	9.5	71.9	135.5
	10 x 1.0	12.4	100.7	198.0
	12 x 1.0	12.8	119.9	226.0
	16 x 1.0	14.2	158.3	288.5
	20 x 1.0	15.5	196.7	352.0
	25 x 1.0	17.6	244.7	429.5
	2 x 1.5	7.6	35.8	80.0
	3 x 1.5	8.0	50.2	94.0
	4 x 1.5	8.8	64.6	115.5
	5 x 1.5	9.6	79.0	140.0
	6 x 1.5	10.8	93.4	175.0
	7 x 1.5	10.8	107.8	187.0
	10 x 1.5	13.6	151.0	256.5
	12 x 1.5	14.0	179.8	295.0
	16 x 1.5	15.8	237.4	285.5
	20 x 1.5	17.1	295.0	463.0
	25 x 1.5	19.8	367.0	584.5
	2 x 2.5	8.4	55.0	106.0
	3 x 2.5	8.9	79.0	128.0
	4 x 2.5	9.7	103.0	160.0
	5 x 2.5	11.0	127.0	206.0
	6 x 2.5	12.0	151.0	243.5
	7 x 2.5	12.0	175.0	263.5
	10 x 2.5	15.4	247.0	372.5
	12 x 2.5	15.9	295.0	431.0
	14 x 2.5	16.7	343.0	492.0
	16 x 2.5	17.6	391.0	557.5

Other cross-sections and conductor counts are available upon request.

TECHNOKONTROL YKSLXSekw-P-Nr 300/500 V**CONTROL AND POWER FLEXIBLE CABLES**

**APPLICATIONS**

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

Mutual influence between signals transmitted along the cable is substantially reduced by the pair structure.

The cable is protected against interferences from external electric fields by means of an overall electrostatic shield.

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 suitable for fixed and movable indoor 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 and DIN VDE 0295,
- cross-linked polyethylene (XLPE) insulation coloured black or brown and white pair numbers printed for identification,
- insulated conductors stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXSekw-P-Nr 300/500 V – halogen free 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.

TECHNOKONTROL YvKSLXSekw-P-Nr 300/500 V – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXSekw-P-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	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 and IEC 60332-1
in short-circuit	+ 250°C		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	9.3	21.5	71.5		3 x 2 x 1.0	11.5	62.3	140.5
	3 x 2 x 0.5	10.2	31.1	99.0		4 x 2 x 1.0	12.7	81.5	173.0
	4 x 2 x 0.5	11.2	40.7	119.0		5 x 2 x 1.0	13.9	100.7	206.0
	5 x 2 x 0.5	12.2	50.3	140.5		8 x 2 x 1.0	16.4	158.3	304.0
	6 x 2 x 0.5	13.3	59.9	161.5		10 x 2 x 1.0	19.0	196.7	387.5
	8 x 2 x 0.5	14.2	79.1	197.0		12 x 2 x 1.0	19.9	235.1	445.5
	10 x 2 x 0.5	16.3	98.3	245.5		14 x 2 x 1.0	21.2	273.5	507.5
	12 x 2 x 0.5	17.1	117.5	281.0		16 x 2 x 1.0	22.5	311.9	568.5
	16 x 2 x 0.5	19.7	155.9	373.5					
	18 x 2 x 0.5	20.7	175.1	411.0		2 x 2 x 1.5	11.9	64.6	39.0
	24 x 2 x 0.5	23.8	232.7	544.0		3 x 2 x 1.5	12.6	93.4	179.0
	27 x 2 x 0.5	25.1	261.5	600.0		4 x 2 x 1.5	13.9	122.2	222.0
	30 x 2 x 0.5	26.3	290.3	655.0		5 x 2 x 1.5	15.5	151.0	273.0
						8 x 2 x 1.5	18.0	237.4	395.5
	2 x 2 x 0.75	10.6	33.5	99.0		10 x 2 x 1.5	20.9	295.0	502.5
	3 x 2 x 0.75	11.2	47.9	123.5		12 x 2 x 1.5	21.9	352.6	581.0
	4 x 2 x 0.75	12.2	62.3	150.5		14 x 2 x 1.5	23.8	410.2	686.0
	5 x 2 x 0.75	13.4	76.7	178.5					
	8 x 2 x 0.75	15.8	119.9	260.5		2 x 2 x 2.5	13.3	103.0	186.0
	10 x 2 x 0.75	18.0	148.7	315.0		3 x 2 x 2.5	14.1	151.0	247.0
	12 x 2 x 0.75	19.2	177.5	380.0		4 x 2 x 2.5	15.7	199.0	318.0
	16 x 2 x 0.75	21.7	235.1	481.5		5 x 2 x 2.5	17.3	247.0	383.5
	18 x 2 x 0.75	23.3	263.9	553.0		7 x 2 x 2.5	19.3	343.0	523.0
						10 x 2 x 2.5	23.9	487.0	742.0
	2 x 2 x 1.0	10.9	43.1	111.0		12 x 2 x 2.5	25.0	583.0	863.0

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLXSekpekwn-Nr 300/500 V**CONTROL AND POWER FLEXIBLE CABLES****APPLICATIONS**

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

Mutual influence between signals transmitted along the cable is substantially reduced by individually shielded pairs.

The cable is protected against interferences from external electric fields by means of an overall electrostatic shield.

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 suitable for fixed and movable indoor 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 and DIN VDE 0295,
- cross-linked polyethylene (XLPE) insulation coloured black or brown and white pair numbers printed for identification,
- insulated conductors stranded into pairs,
- electrostatic shield over each pair, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXSekpekwn-Nr 300/500 V – halogen free 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.

TECHNOKONTROL YvKSLXSekpekwn-Nr 300/500 V – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXSekpek-Nr 300/500 V

CHARACTERISTICS

Conductor cross-section	mm ²	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	80	90	100	110	130

Operating voltage U ₀ /U	300/500V	Operating temperature range for fixed installations	from -30 to +80°C
Voltage test	3.0 kV rms	for movable installations	from -5 to +70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor-screen capacitance approximate,	200 nF/km	Cable combustibility	flame retardant
Inductance, approximate	0.7 mH/km	Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
Conductor temperature limit in work conditions	+ 90°C		
in short-circuit	+ 250°C		

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	9.8	26.7	84.0		2 x 2 x 1.0	11.3	53.4	129.5
	3 x 2 x 0.5	10.8	38.8	117.0		3 x 2 x 1.0	12.1	77.7	170.0
	4 x 2 x 0.5	11.8	50.9	143.5		4 x 2 x 1.0	13.3	102.0	212.0
	5 x 2 x 0.5	12.9	63.0	170.5		5 x 2 x 1.0	14.8	126.3	260.5
	6 x 2 x 0.5	14.1	75.2	197.7		8 x 2 x 1.0	17.2	199.2	381.5
	8 x 2 x 0.5	15.2	99.4	251.8		10 x 2 x 1.0	20.0	247.8	483.5
	10 x 2 x 0.5	17.3	123.7	305.7		12 x 2 x 1.0	20.9	296.4	561.5
	12 x 2 x 0.5	18.1	147.9	352.5					
	16 x 2 x 0.5	20.9	196.5	469.4		2 x 2 x 1.5	12.4	78.7	163.5
	18 x 2 x 0.5	21.9	220.7	519.1		3 x 2 x 1.5	13.0	114.4	214.5
	24 x 2 x 0.5	25.3	293.5	687.2		4 x 2 x 1.5	14.7	150.2	277.0
						5 x 2 x 1.5	16.2	185.9	333.7
	2 x 2 x 0.75	11.1	43.6	118.0		8 x 2 x 1.5	19.2	293.1	510.7
	3 x 2 x 0.75	11.7	63.0	152.0		10 x 2 x 1.5	21.9	364.6	625.0
	4 x 2 x 0.75	12.9	82.5	188.0					
	5 x 2 x 0.75	14.1	101.9	225.0		2 x 2 x 2.5	13.3	116.9	211.5
	8 x 2 x 0.75	16.6	160.1	336.0		3 x 2 x 2.5	14.1	171.7	285.1
	10 x 2 x 0.75	19.3	198.9	426.5		4 x 2 x 2.5	15.7	226.5	369.6
	12 x 2 x 0.75	20.2	237.8	493.5		5 x 2 x 2.5	17.3	281.4	448.6
	16 x 2 x 0.75	23.3	315.4	652.5		7 x 2 x 2.5	19.3	445.9	614.5
						10 x 2 x 2.5	23.9	555.6	872.8

Other cross-sections and pair counts are available upon request.

C – Intrinsically safe cables

TECHNOKONTROL IB-YSLY

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB-YSLY is a cable intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black PVC insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-YSLY

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	130	140	140	140	170

Operating voltage U ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	4.5	4.8	29.3
	2 x 0.5	6.2	9.6	53.6
	3 x 0.5	6.5	14.4	62.0
	4 x 0.5	7.0	19.2	72.7
	5 x 0.5	7.4	24.0	85.6
	6 x 0.5	8.0	28.8	98.7
	7 x 0.5	8.0	33.6	103.0
	8 x 0.5	8.5	38.4	120.0
	10 x 0.5	9.7	48.0	140.5
	12 x 0.5	9.9	57.6	157.0
	14 x 0.5	10.4	67.2	175.4
	16 x 0.5	10.9	76.8	195.8
	18 x 0.5	11.4	86.4	216.4
	19 x 0.5	11.4	91.2	220.8
	21 x 0.5	11.9	100.8	245.4
	24 x 0.5	13.1	115.2	273.5
	25 x 0.5	13.4	120.0	288.9
	27 x 0.5	13.8	129.6	302.1
	30 x 0.5	13.8	144.0	323.5
	34 x 0.5	14.8	163.2	371.1
	36 x 0.5	14.8	172.8	379.7
	37 x 0.5	14.8	177.6	384.0
	40 x 0.5	15.4	192.0	416.2
	41 x 0.5	15.9	196.8	438.8
	44 x 0.5	16.6	211.2	451.9
	48 x 0.5	16.8	230.4	483.5
	50 x 0.5	17.3	240.3	508.4
	52 x 0.5	17.3	249.6	517.0
	56 x 0.5	17.8	268.8	552.6
	60 x 0.5	18.7	288.0	605.2
	1 x 0.75	4.7	7.2	33.2
	2 x 0.75	6.6	14.4	62.3
	3 x 0.75	6.9	21.6	73.1
	4 x 0.75	7.4	28.8	86.5
	5 x 0.75	7.9	36.0	102.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	6 x 0.75	8.5	43.2	118.8
	7 x 0.75	8.5	50.4	124.8
	8 x 0.75	9.1	57.6	145.8
	10 x 0.75	10.4	72.0	171.5
	12 x 0.75	10.7	86.4	192.8
	14 x 0.75	11.2	100.8	216.3
	16 x 0.75	11.7	115.2	242.3
	18 x 0.75	12.3	129.6	268.5
	19 x 0.75	12.3	136.8	274.5
	21 x 0.75	12.9	151.2	305.6
	24 x 0.75	14.2	172.8	341.1
	25 x 0.75	14.5	180.0	360.4
	27 x 0.75	15.0	194.4	377.7
	30 x 0.75	15.0	216.0	405.9
	34 x 0.75	16.1	244.8	466.1
	36 x 0.75	16.1	259.2	478.1
	37 x 0.75	16.1	266.4	484.1
	40 x 0.75	16.7	288.0	525.0
	41 x 0.75	17.2	295.2	553.0
	44 x 0.75	18.4	316.8	587.1
	48 x 0.75	18.7	345.6	628.7
	50 x 0.75	19.2	360.0	660.5
	52 x 0.75	19.2	374.4	672.5
	56 x 0.75	19.7	403.2	718.9
	60 x 0.75	20.3	432.0	765.7
	1 x 1.0	4.9	9.6	37.9
	2 x 1.0	7.0	19.2	72.6
	3 x 1.0	7.3	28.8	86.3
	4 x 1.0	7.9	38.4	103.0
	5 x 1.0	8.5	48.0	122.8
	6 x 1.0	9.1	57.6	143.0
	7 x 1.0	9.1	67.2	151.0
	8 x 1.0	9.7	76.8	176.9
	10 x 1.0	11.2	96.0	208.7
	12 x 1.0	11.5	115.2	235.9

TECHNOKONTROL IB-YSLY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	14 x 1.0	12.1	134.4	265.5
	16 x 1.0	12.7	153.6	298.2
	18 x 1.0	13.3	172.8	331.3
	19 x 1.0	13.3	182.4	339.3
	21 x 1.0	13.9	201.6	378.2
	24 x 1.0	15.4	230.4	422.7
	25 x 1.0	15.7	240.0	446.8
	27 x 1.0	16.3	259.2	468.9
	30 x 1.0	16.3	288.0	505.4
	34 x 1.0	17.5	326.4	580.8
	36 x 1.0	17.5	345.6	596.9
	37 x 1.0	17.5	355.2	604.9
	40 x 1.0	18.5	384.0	673.2
	41 x 1.0	19.2	393.6	708.1
	44 x 1.0	20.0	422.4	732.0
	48 x 1.0	20.3	460.8	785.3
	50 x 1.0	20.9	480.0	825.2
	52 x 1.0	20.9	499.2	841.3
	56 x 1.0	21.5	537.6	900.3
	60 x 1.0	22.1	576.0	959.7
	1 x 1.5	5.4	14.4	49.3
	2 x 1.5	8.0	28.8	98.1
	3 x 1.5	8.4	43.2	118.5
	4 x 1.5	9.1	57.6	142.9
	5 x 1.5	9.8	72.0	172.0
	6 x 1.5	10.6	86.4	201.5
	7 x 1.5	10.6	100.8	213.7
	8 x 1.5	11.4	115.2	252.1
	10 x 1.5	13.2	144.0	297.6
	12 x 1.5	13.6	172.8	338.5
	14 x 1.5	14.3	201.6	382.6
	16 x 1.5	15.0	230.4	431.3
	18 x 1.5	15.8	259.2	480.5
	19 x 1.5	15.8	273.6	492.7
	21 x 1.5	16.6	302.4	550.8
	24 x 1.5	18.8	345.6	632.8
	25 x 1.5	19.2	360.0	669.2
	27 x 1.5	19.9	388.8	702.5
	30 x 1.5	19.9	432.0	758.0
	34 x 1.5	21.4	489.6	872.1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	36 x 1.5	21.4	518.4	896.6
	37 x 1.5	21.4	532.8	908.8
	40 x 1.5	22.2	576.0	987.1
	41 x 1.5	23.0	590.4	1039.1
	44 x 1.5	24.4	633.6	1095.6
	48 x 1.5	24.8	691.2	1176.5
	50 x 1.5	25.5	720.0	1236.7
	52 x 1.5	25.5	748.8	1261.1
	56 x 1.5	26.2	806.4	1350.5
	60 x 1.5	27.0	864.0	1440.4
	1 x 2.5	5.8	24.0	63.0
	2 x 2.5	8.8	48.0	128.2
	3 x 2.5	9.3	72.0	158.2
	4 x 2.5	10.0	96.0	193.3
	5 x 2.5	10.9	120.0	234.3
	6 x 2.5	11.8	144.0	276.0
	7 x 2.5	11.8	168.0	295.6
	8 x 2.5	12.7	192.0	349.0
	10 x 2.5	14.8	240.0	414.3
	12 x 2.5	15.3	288.0	474.7
	14 x 2.5	16.0	336.0	539.3
	16 x 2.5	16.9	384.0	609.9
	18 x 2.5	17.8	432.0	681.0
	19 x 2.5	17.8	456.0	700.6
	21 x 2.5	19.1	504.0	800.8
	24 x 2.5	21.2	516.0	897.2
	25 x 2.5	21.7	600.0	948.4
	27 x 2.5	22.4	648.0	998.5
	30 x 2.5	22.4	720.0	1082.4
	34 x 2.5	24.6	816.0	1267.6
	36 x 2.5	24.6	864.0	1306.8
	37 x 2.5	24.6	888.0	1326.4
	40 x 2.5	25.5	960.0	1440.4
	41 x 2.5	26.4	984.0	1512.7
	44 x 2.5	27.6	1056.0	1568.4
	48 x 2.5	28.1	1152.0	1688.7
	50 x 2.5	29.2	1200.0	1800.8
	52 x 2.5	29.2	1248.0	1840.0
	56 x 2.5	30.1	1344.0	1971.8
	60 x 2.5	31.0	1440.0	2104.4

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB-YSLY-P

INTRINSICALLY SAFE CABLES**APPLICATIONS**

TECHNOKONTROL IB-YSLY P is a multipair cable intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

Mutual influence between signals transmitted along the cable and interferences from external fields are substantially reduced by the pair structure.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-YSLY-P

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	9.5	19.2	108.0		5 x 2 x 1.0	13.4	96.0	251.2
	3 x 2 x 0.5	10.0	28.8	130.8		6 x 2 x 1.0	14.4	115.2	291.4
	4 x 2 x 0.5	10.8	38.4	153.6		7 x 2 x 1.0	14.4	134.4	311.1
	5 x 2 x 0.5	11.6	48.0	175.8		8 x 2 x 1.0	15.3	153.6	342.8
	6 x 2 x 0.5	12.5	57.6	202.1		10 x 2 x 1.0	17.1	192.0	413.1
	7 x 2 x 0.5	12.5	67.2	213.2		12 x 2 x 1.0	17.9	230.4	469.7
	8 x 2 x 0.5	13.2	76.8	233.4		16 x 2 x 1.0	20.1	307.2	591.8
	10 x 2 x 0.5	14.7	96.0	278.9		20 x 2 x 1.0	22.0	384.0	711.5
	12 x 2 x 0.5	15.3	115.2	313.7					
	16 x 2 x 0.5	17.1	153.6	390.1		2 x 2 x 1.5	12.4	57.6	195.7
	18 x 2 x 0.5	17.9	172.8	427.5		3 x 2 x 1.5	13.0	86.4	249.8
	20 x 2 x 0.5	18.7	192.0	464.4		4 x 2 x 1.5	14.2	115.2	301.1
	25 x 2 x 0.5	20.5	240.0	557.4		5 x 2 x 1.5	15.5	144.0	350.4
	30 x 2 x 0.5	22.1	288.0	647.3		6 x 2 x 1.5	16.8	172.8	409.0
	40 x 2 x 0.5	24.9	384.0	824.7		7 x 2 x 1.5	16.8	201.6	438.9
	50 x 2 x 0.5	27.4	480.0	998.9		8 x 2 x 1.5	17.8	230.4	484.9
						10 x 2 x 1.5	20.1	288.0	587.2
	2 x 2 x 0.75	10.2	28.8	125.2		12 x 2 x 1.5	21.0	345.6	671.6
	3 x 2 x 0.75	10.7	43.2	154.1		16 x 2 x 1.5	23.7	460.8	852.0
	4 x 2 x 0.75	11.5	57.6	182.6		20 x 2 x 1.5	26.0	576.0	1029.3
	5 x 2 x 0.75	12.5	72.0	210.2					
	6 x 2 x 0.75	13.4	86.4	242.8		2 x 2 x 2.5	13.9	96.0	254.7
	7 x 2 x 0.75	13.4	100.8	257.7		3 x 2 x 2.5	14.7	144.0	332.3
	8 x 2 x 0.75	14.2	115.2	283.2		4 x 2 x 2.5	16.0	192.0	405.4
	10 x 2 x 0.75	15.9	144.0	339.9		5 x 2 x 2.5	17.5	240.0	475.6
	12 x 2 x 0.75	16.6	172.8	384.6		6 x 2 x 2.5	19.1	288.0	558.1
	16 x 2 x 0.75	18.6	230.4	481.7		7 x 2 x 2.5	19.1	336.0	604.6
	20 x 2 x 0.75	20.4	288.0	576.6		8 x 2 x 2.5	20.3	384.0	670.9
						10 x 2 x 2.5	23.0	480.0	816.4
	2 x 2 x 1.0	10.8	38.4	145.6		12 x 2 x 2.5	24.0	576.0	940.6
	3 x 2 x 1.0	11.4	57.6	181.9		16 x 2 x 2.5	27.2	768.0	1202.9
	4 x 2 x 1.0	12.3	76.8	217.1		20 x 2 x 2.5	30.1	960.0	1476.0

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB-YSL(St)Y

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB-YSL(St)Y is an overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 300/500 V.

The cable is protected against interferences from external electric fields by means of an overall shield and emission of interferences out of the cable is reduced.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black PVC insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-YSL(St)Y

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	160	170	180	180	200

Operating voltage U ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0.5	6.4	14.4	57.3
	3 x 0.5	6.7	19.2	63.7
	4 x 0.5	7.2	24.0	74.1
	5 x 0.5	7.6	28.8	86.4
	6 x 0.5	8.2	33.6	99.4
	7 x 0.5	8.2	38.4	103.7
	8 x 0.5	8.7	43.2	120.1
	10 x 0.5	9.9	52.8	137.9
	12 x 0.5	10.1	62.4	154.7
	14 x 0.5	10.6	72.0	172.7
	16 x 0.5	11.1	81.6	192.6
	18 x 0.5	11.6	91.2	213.2
	19 x 0.5	11.6	96.0	217.5
	21 x 0.5	12.1	105.6	241.4
	24 x 0.5	13.3	120.0	266.8
	25 x 0.5	13.6	124.8	282.6
	27 x 0.5	13.6	134.4	291.2
	30 x 0.5	14.0	148.8	316.7
	34 x 0.5	15.0	168.0	363.7
	36 x 0.5	15.0	177.6	372.4
	37 x 0.5	15.0	182.4	380.1
	40 x 0.5	15.6	196.8	408.1
	41 x 0.5	16.1	201.6	430.1
	44 x 0.5	16.8	216.0	441.1
	48 x 0.5	17.0	235.2	473.1
	50 x 0.5	17.5	244.8	497.5
	52 x 0.5	17.5	254.4	506.2
	56 x 0.5	18.4	273.6	558.2
	60 x 0.5	18.9	292.8	593.8
	2 x 0.75	6.8	19.2	65.2
	3 x 0.75	7.1	26.4	73.6
	4 x 0.75	7.6	33.6	86.7
	5 x 0.75	8.2	40.8	102.7
	6 x 0.75	8.7	48.0	118.4
	7 x 0.75	8.7	55.2	124.4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	8 x 0.75	9.3	62.4	144.8
	10 x 0.75	10.6	76.8	167.0
	12 x 0.75	10.9	91.2	188.9
	14 x 0.75	11.4	105.6	212.6
	16 x 0.75	12.0	120.0	238.0
	18 x 0.75	12.6	134.4	263.7
	19 x 0.75	12.6	141.6	269.7
	21 x 0.75	13.1	156.0	300.6
	24 x 0.75	14.5	177.6	332.3
	25 x 0.75	14.8	184.8	352.8
	27 x 0.75	14.8	199.2	364.7
	30 x 0.75	15.3	220.8	397.9
	34 x 0.75	16.4	249.6	457.6
	36 x 0.75	16.4	264.0	469.5
	37 x 0.75	16.4	271.2	475.5
	40 x 0.75	16.9	292.8	515.9
	41 x 0.75	17.5	300.0	543.3
	44 x 0.75	18.7	321.6	574.9
	2 x 1.0	7.2	24.0	73.9
	3 x 1.0	7.5	33.6	84.7
	4 x 1.0	8.0	43.2	101.0
	5 x 1.0	8.6	52.8	120.6
	6 x 1.0	9.3	62.4	139.8
	7 x 1.0	9.3	72.0	147.9
	8 x 1.0	9.9	81.6	173.5
	10 x 1.0	11.4	100.8	200.9
	12 x 1.0	11.7	120.0	228.7
	14 x 1.0	12.2	139.2	257.9
	16 x 1.0	12.8	158.4	289.8
	18 x 1.0	13.5	177.6	322.5
	19 x 1.0	13.5	187.2	330.6
	21 x 1.0	14.1	206.4	368.4
	24 x 1.0	15.5	235.2	408.8
	25 x 1.0	15.9	244.8	433.3
	27 x 1.0	15.9	264.0	449.4

TECHNOKONTROL IB-YSL(St)Y

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	30 x 1.0	16.4	292.8	492.1
	34 x 1.0	17.6	331.2	565.7
	36 x 1.0	17.6	350.4	581.9
	37 x 1.0	17.6	360.0	589.9
	40 x 1.0	18.7	388.8	657.9
	41 x 1.0	19.3	398.4	691.8
	2 x 1.5	8.2	36.0	98.9
	3 x 1.5	8.6	50.4	114.7
	4 x 1.5	9.3	64.8	138.6
	5 x 1.5	10.0	79.2	167.3
	6 x 1.5	10.8	93.6	195.7
	7 x 1.5	10.8	108.0	207.9
	8 x 1.5	11.6	122.4	245.7
	10 x 1.5	13.4	151.2	284.7
	12 x 1.5	13.8	180.0	326.6
	14 x 1.5	14.5	208.8	370.3
	16 x 1.5	15.2	237.6	418.6
	18 x 1.5	16.0	266.4	466.7
	19 x 1.5	16.0	280.8	478.9
	21 x 1.5	16.8	309.6	536.4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1.5	19.0	352.8	612.1
	25 x 1.5	19.4	367.2	649.6
	27 x 1.5	19.4	396.0	674.1
	30 x 1.5	20.1	439.2	738.6
	34 x 1.5	21.6	496.8	851.3
	2 x 2.5	9.0	55.2	125.7
	3 x 2.5	9.5	79.2	149.5
	4 x 2.5	10.2	103.2	184.5
	5 x 2.5	11.1	127.2	224.4
	6 x 2.5	12.0	151.2	265.1
	7 x 2.5	12.0	175.2	284.7
	8 x 2.5	12.9	199.2	336.7
	10 x 2.5	15.0	247.2	393.4
	12 x 2.5	15.5	295.2	455.3
	14 x 2.5	16.2	343.2	519.8
	16 x 2.5	17.1	391.2	589.1
	18 x 2.5	18.4	439.2	675.9
	19 x 2.5	18.4	463.2	695.5
	21 x 2.5	19.3	511.2	777.7
	24 x 2.5	21.4	583.2	865.2

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB-YSL(St)Y P

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB-YSL(St)Y P is a multipair and overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

Mutual influence between signals transmitted along the cable is substantially reduced by the pair structure.

The cable is protected against interferences from external electric fields by means of an overall shield.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-YSL(St)Y P

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	9.6	24.0	116.0		5 x 2 x 1.0	13.5	100.8	259.7
	3 x 2 x 0.5	10.1	33.6	139.0		6 x 2 x 1.0	14.5	120.0	300.0
	4 x 2 x 0.5	10.9	43.2	161.9		7 x 2 x 1.0	14.5	139.2	319.7
	5 x 2 x 0.5	11.7	52.8	183.5		8 x 2 x 1.0	15.4	158.4	350.9
	6 x 2 x 0.5	12.6	62.4	209.8		10 x 2 x 1.0	17.2	196.8	421.4
	7 x 2 x 0.5	12.6	72.0	220.8		12 x 2 x 1.0	18.0	235.2	477.8
	8 x 2 x 0.5	13.3	81.6	240.6		16 x 2 x 1.0	20.2	312.0	599.6
	10 x 2 x 0.5	14.8	100.8	285.6		20 x 2 x 1.0	22.1	388.8	719.8
	12 x 2 x 0.5	15.4	120.0	320.5					
	16 x 2 x 0.5	17.2	158.4	396.3		2 x 2 x 1.5	12.5	64.8	202.0
	18 x 2 x 0.5	18.0	177.6	433.1		3 x 2 x 1.5	13.1	93.6	254.5
	20 x 2 x 0.5	18.8	196.8	470.2		4 x 2 x 1.5	14.3	122.4	304.3
	25 x 2 x 0.5	20.6	244.8	562.6		5 x 2 x 1.5	15.6	151.2	352.2
	30 x 2 x 0.5	22.2	292.8	652.0		6 x 2 x 1.5	16.9	180.0	408.3
	40 x 2 x 0.5	25.0	388.8	829.3		7 x 2 x 1.5	16.9	208.8	437.3
	50 x 2 x 0.5	27.5	484.8	1003.0		8 x 2 x 1.5	17.9	237.6	482.0
						10 x 2 x 1.5	20.2	295.2	580.5
						12 x 2 x 1.5	21.1	352.8	662.5
						16 x 2 x 1.5	23.8	468.0	837.3
						20 x 2 x 1.5	26.1	583.2	1009.7
	2 x 2 x 0.75	10.3	33.6	133.7		2 x 2 x 2.5	14.0	103.2	266.5
	3 x 2 x 0.75	10.8	48.0	163.5		3 x 2 x 2.5	14.8	151.2	344.5
	4 x 2 x 0.75	11.6	62.4	191.5		4 x 2 x 2.5	16.1	199.2	417.7
	5 x 2 x 0.75	12.6	76.8	219.3		5 x 2 x 2.5	17.6	247.2	488.0
	6 x 2 x 0.75	13.5	91.2	251.4		6 x 2 x 2.5	19.2	295.2	570.4
	7 x 2 x 0.75	13.5	105.6	266.3		7 x 2 x 2.5	19.2	343.2	617.1
	8 x 2 x 0.75	14.3	120.0	291.9		8 x 2 x 2.5	20.4	391.2	683.4
	10 x 2 x 0.75	16.0	148.8	348.3		10 x 2 x 2.5	23.1	487.2	828.5
	12 x 2 x 0.75	16.7	177.6	392.7		12 x 2 x 2.5	24.1	583.2	953.2
	16 x 2 x 0.75	18.7	235.2	490.1		16 x 2 x 2.5	27.3	775.2	1206.0
	20 x 2 x 0.75	20.5	292.8	584.9		20 x 2 x 2.5	30.2	967.2	1477.2
	2 x 2 x 1.0	10.9	43.2	154.2					
	3 x 2 x 1.0	11.5	62.4	190.7					
	4 x 2 x 1.0	12.4	81.6	226.1					

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB-YSL(St)Y PIMF

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB-YSL(St)Y PIMF is a multipair, pair and overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 300/500 V.

Mutual influence between signals transmitted along the cable is substantially reduced by the individually shielded pair structure.

The cable is protected against interferences from external electric fields by means of an overall electrostatic shield.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- electrostatic shield over each pair, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-YSL(St)Y PIMF

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	10.0	33.6	133.8		6 x 2 x 1.0	15.0	148.8	351.2
	3 x 2 x 0.5	10.4	48.0	164.2		7 x 2 x 1.0	15.0	172.8	377.7
	4 x 2 x 0.5	11.3	62.4	194.4		8 x 2 x 1.0	15.9	196.8	417.0
	5 x 2 x 0.5	12.2	76.8	223.8		10 x 2 x 1.0	17.9	244.8	502.6
	6 x 2 x 0.5	13.1	91.2	257.1		12 x 2 x 1.0	18.7	292.8	574.6
	7 x 2 x 0.5	13.1	105.6	274.4		16 x 2 x 1.0	21.0	388.8	726.7
	8 x 2 x 0.5	13.8	120.0	301.8		20 x 2 x 1.0	23.0	484.8	876.5
	10 x 2 x 0.5	15.4	148.8	361.3					
	12 x 2 x 0.5	16.1	177.6	409.4		2 x 2 x 1.5	12.8	79.2	225.5
	16 x 2 x 0.5	18.0	235.2	513.2		3 x 2 x 1.5	13.5	115.2	288.4
	18 x 2 x 0.5	18.9	264.0	564.6		4 x 2 x 1.5	14.7	151.2	348.1
	20 x 2 x 0.5	19.7	292.8	615.1		5 x 2 x 1.5	16.0	187.2	405.6
	25 x 2 x 0.5	21.5	364.8	742.5		6 x 2 x 1.5	17.4	223.2	472.7
	30 x 2 x 0.5	23.2	436.8	866.7		7 x 2 x 1.5	17.4	259.2	510.4
						8 x 2 x 1.5	18.4	295.2	564.0
	2 x 2 x 0.75	10.6	43.2	152.2		10 x 2 x 1.5	20.8	367.2	682.9
	3 x 2 x 0.75	11.1	62.4	188.9		12 x 2 x 1.5	21.8	439.2	783.2
	4 x 2 x 0.75	12.0	81.6	224.2		16 x 2 x 1.5	24.5	583.2	996.4
	5 x 2 x 0.75	13.0	100.8	259.1		20 x 2 x 1.5	27.0	727.2	1207.4
	6 x 2 x 0.75	14.1	120.0	299.5					
	7 x 2 x 0.75	14.1	139.2	320.7		2 x 2 x 2.5	14.4	117.6	291.4
	8 x 2 x 0.75	14.9	158.4	352.6		3 x 2 x 2.5	15.2	172.8	380.5
	10 x 2 x 0.75	16.7	196.8	423.6		4 x 2 x 2.5	16.6	228.0	464.2
	12 x 2 x 0.75	17.4	235.2	482.4		5 x 2 x 2.5	18.1	283.2	544.7
	16 x 2 x 0.75	19.5	312.0	607.2		6 x 2 x 2.5	19.7	338.4	638.2
	20 x 2 x 0.75	21.3	388.8	729.9		7 x 2 x 2.5	19.7	393.6	694.1
						8 x 2 x 2.5	20.9	448.8	770.4
	2 x 2 x 1.0	11.3	52.8	173.4		10 x 2 x 2.5	23.7	559.2	937.0
	3 x 2 x 1.0	11.8	76.8	218.0		12 x 2 x 2.5	24.8	669.6	1081.1
	4 x 2 x 1.0	12.8	100.8	261.3		16 x 2 x 2.5	28.3	890.4	1388.4
	5 x 2 x 1.0	13.9	124.8	303.2		20 x 2 x 2.5	31.3	1111.2	1702.0

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB-YSLCY**INTRINSICALLY SAFE CABLES****APPLICATIONS**

TECHNOKONTROL IB-YSLCY is a shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 300/500 V.

The cable is protected against interferences from external electromagnetic fields by means of an overall shield and emission of interferences out of the cable is reduced.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black PVC insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- tinned copper wire braid shield of coverage bigger than 80%,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

AVAILABLE UPON REQUEST

TECHNOKONTROL IB1-YSLCEY – cable with a flexible drain wire stranded of tin-plated annealed copper wires, (class 2) laid under the shield.

TECHNOKONTROL IB-YSLCY

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	160	170	180	180	200

Operating voltage U_o/U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	5.0	11.9	37.0
	2 x 0.5	6.8	23.8	65.4
	3 x 0.5	7.1	28.5	72.9
	4 x 0.5	7.5	34.4	84.3
	5 x 0.5	8.0	41.0	98.2
	6 x 0.5	8.5	48.6	113.6
	7 x 0.5	8.5	53.4	117.9
	8 x 0.5	9.1	61.0	136.9
	10 x 0.5	10.3	72.5	156.2
	12 x 0.5	10.5	83.0	173.8
	14 x 0.5	11.0	94.3	193.3
	16 x 0.5	11.6	112.6	222.0
	18 x 0.5	12.1	124.4	244.4
	19 x 0.5	12.1	129.2	248.7
	21 x 0.5	12.6	141.1	274.7
	24 x 0.5	13.8	160.6	304.6
	25 x 0.5	14.1	165.4	320.3
	27 x 0.5	14.1	176.2	330.0
	30 x 0.5	14.7	208.6	373.5
	34 x 0.5	15.7	233.9	425.8
	36 x 0.5	15.7	243.5	434.5
	37 x 0.5	15.7	248.3	451.6
	40 x 0.5	16.3	265.3	472.6
	41 x 0.5	16.8	271.3	495.8
	44 x 0.5	17.5	291.3	511.7
	48 x 0.5	17.7	311.8	544.8
	50 x 0.5	18.6	321.4	585.9
	52 x 0.5	18.6	333.9	597.3
	56 x 0.5	19.3	379.2	658.6
	60 x 0.5	19.8	400.7	696.4
	1 x 0.75	5.2	15.7	41.9
	2 x 0.75	7.2	29.0	74.8
	3 x 0.75	7.5	38.6	85.4
	4 x 0.75	8.0	46.1	98.9
	5 x 0.75	8.5	55.8	116.9

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	6 x 0.75	9.1	65.8	135.2
	7 x 0.75	9.1	73.0	141.1
	8 x 0.75	9.7	83.0	164.2
	10 x 0.75	11.1	107.3	196.1
	12 x 0.75	11.4	122.7	218.9
	14 x 0.75	11.9	140.6	245.4
	16 x 0.75	12.5	156.1	271.9
	18 x 0.75	13.1	173.8	300.6
	19 x 0.75	13.1	181.0	306.6
	21 x 0.75	13.6	197.4	339.1
	24 x 0.75	15.2	243.5	394.7
	25 x 0.75	15.5	250.7	414.9
	27 x 0.75	15.5	265.5	427.3
	30 x 0.75	16.0	289.9	462.9
	34 x 0.75	17.1	323.3	526.6
	36 x 0.75	17.1	339.9	540.7
	37 x 0.75	17.1	347.1	546.6
	40 x 0.75	17.6	372.3	590.4
	41 x 0.75	18.8	405.6	660.0
	44 x 0.75	19.6	432.2	679.9
	1 x 1.0	5.4	18.1	45.9
	2 x 1.0	7.6	34.4	84.1
	3 x 1.0	7.9	45.8	96.5
	4 x 1.0	8.4	56.6	114.0
	5 x 1.0	9.0	68.2	135.1
	6 x 1.0	9.7	80.2	156.6
	7 x 1.0	9.7	89.8	164.7
	8 x 1.0	10.3	103.6	193.9
	10 x 1.0	11.9	132.9	230.9
	12 x 1.0	12.2	155.0	261.5
	14 x 1.0	12.7	175.0	291.5
	16 x 1.0	13.3	197.8	326.7
	18 x 1.0	14.0	218.6	360.6
	19 x 1.0	14.0	228.2	368.7
	21 x 1.0	14.8	266.2	425.2

TECHNOKONTROL IB-YSLCY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1.0	16.2	303.7	473.3
	25 x 1.0	16.6	313.3	497.8
	27 x 1.0	16.6	333.7	515.1
	30 x 1.0	17.1	366.5	561.1
	34 x 1.0	18.7	408.5	654.9
	36 x 1.0	18.7	429.9	673.1
	37 x 1.0	18.9	465.6	706.8
	40 x 1.0	19.6	494.4	758.3
	41 x 1.0	20.2	505.5	793.6
	1 x 1.5	5.9	24.0	57.0
	2 x 1.5	8.6	48.6	111.1
	3 x 1.5	9.0	63.3	127.1
	4 x 1.5	9.7	80.2	153.4
	5 x 1.5	10.4	97.4	184.4
	6 x 1.5	11.2	114.0	214.8
	7 x 1.5	11.3	136.1	235.0
	8 x 1.5	12.1	156.4	277.9
	10 x 1.5	13.9	189.4	320.4
	12 x 1.5	14.3	219.8	363.8
	14 x 1.5	15.2	268.4	427.1
	16 x 1.5	15.9	301.1	478.7
	18 x 1.5	16.7	334.4	531.0
	19 x 1.5	16.7	352.1	546.3

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	21 x 1.5	17.5	382.0	604.5
	24 x 1.5	19.9	457.5	711.9
	25 x 1.5	20.3	471.9	749.3
	27 x 1.5	20.3	504.2	777.1
	30 x 1.5	21.0	554.6	848.1
	34 x 1.5	22.5	615.8	963.7
	1 x 2.5	6.3	35.3	70.9
	2 x 2.5	9.4	70.6	140.5
	3 x 2.5	9.8	94.9	164.6
	4 x 2.5	10.6	121.6	201.8
	5 x 2.5	11.6	155.8	251.8
	6 x 2.5	12.5	183.8	295.9
	7 x 2.5	12.5	207.8	315.5
	8 x 2.5	13.4	239.5	374.6
	10 x 2.5	15.5	292.2	435.1
	12 x 2.5	16.2	360.1	516.8
	14 x 2.5	16.9	414.5	586.6
	16 x 2.5	18.2	465.4	675.2
	18 x 2.5	19.3	542.4	774.3
	19 x 2.5	19.3	566.4	793.9
	21 x 2.5	20.2	618.4	879.9
	24 x 2.5	22.3	705.3	980.9

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB-YSLYCY-P

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB-YSLYCY P is a multipair and overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 300/500 V.

Mutual influence between signals transmitted along the cable is substantially reduced by the pair structure.

The cable is protected against interferences from external electromagnetic fields by means of an overall shield and emission of interferences out of the cable is reduced.

Tensile strength of the cable is increased by an inner sheath.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- PVC inner sheath
- tinned copper wire braid shield of coverage bigger than 80%,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-YSLYCY-P

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	300/500 V	Operating temperature range	
Voltage test	3.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	20 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	12.9	57.7	221.7
	3 x 2 x 0.5	13.4	69.7	249.9
	4 x 2 x 0.5	14.2	81.6	279.9
	5 x 2 x 0.5	15.0	94.7	310.8
	6 x 2 x 0.5	16.1	124.0	363.5
	7 x 2 x 0.5	16.1	133.6	374.6
	8 x 2 x 0.5	16.8	147.2	402.9
	10 x 2 x 0.5	18.7	174.2	482.5
	12 x 2 x 0.5	19.5	219.7	549.3
	14 x 2 x 0.5	20.4	239.7	595.4
	16 x 2 x 0.5	21.3	271.5	652.2
	18 x 2 x 0.5	22.1	291.7	696.3
	20 x 2 x 0.5	22.9	315.4	743.5
	24 x 2 x 0.5	24.7	364.8	861.1
	25 x 2 x 0.5	25.1	374.4	882.8
	30 x 2 x 0.5	26.7	436.8	1000.1
	2 x 2 x 0.75	13.6	69.7	246.0
	3 x 2 x 0.75	14.1	85.7	280.2
	4 x 2 x 0.75	15.1	118.5	333.7
	5 x 2 x 0.75	16.1	138.4	373.0
	6 x 2 x 0.75	17.0	157.5	416.2
	7 x 2 x 0.75	17.0	171.9	431.2
	8 x 2 x 0.75	18.2	190.1	481.7
	10 x 2 x 0.75	20.1	249.3	582.7
	12 x 2 x 0.75	20.8	282.7	637.1
	14 x 2 x 0.75	21.8	320.5	702.6
	16 x 2 x 0.75	22.8	350.3	758.8
	18 x 2 x 0.75	24.1	384.7	840.6
	20 x 2 x 0.75	25.0	422.4	903.9
	2 x 2 x 1.0	14.4	96.6	289.0
	3 x 2 x 1.0	15.0	118.0	331.2
	4 x 2 x 1.0	15.9	142.3	377.7

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	5 x 2 x 1.0	17.0	165.7	422.6
	6 x 2 x 1.0	18.4	190.7	491.8
	7 x 2 x 1.0	18.4	209.9	511.7
	8 x 2 x 1.0	19.5	258.1	579.7
	10 x 2 x 1.0	21.3	303.0	670.5
	12 x 2 x 1.0	22.1	349.3	740.6
	14 x 2 x 1.0	23.6	392.2	836.2
	16 x 2 x 1.0	24.7	441.6	916.6
	18 x 2 x 1.0	25.7	481.3	986.4
	20 x 2 x 1.0	26.6	527.5	1061.8
	2 x 2 x 1.5	16.0	123.1	352.1
	3 x 2 x 1.5	16.6	154.9	412.0
	4 x 2 x 1.5	17.8	190.1	475.7
	5 x 2 x 1.5	19.7	248.5	580.3
	6 x 2 x 1.5	21.0	282.7	651.7
	7 x 2 x 1.5	21.0	311.5	680.9
	8 x 2 x 1.5	22.0	349.3	742.0
	10 x 2 x 1.5	24.7	422.4	895.4
	12 x 2 x 1.5	25.6	481.3	986.4
	14 x 2 x 1.5	27.0	552.8	1099.8
	16 x 2 x 1.5	28.3	613.7	1200.8
	18 x 2 x 1.5	29.9	685.7	1338.9
	20 x 2 x 1.5	31.0	743.3	1435.2
	2 x 2 x 2.5	17.5	169.8	432.0
	3 x 2 x 2.5	18.7	220.7	534.6
	4 x 2 x 2.5	20.2	297.3	647.6
	5 x 2 x 2.5	21.7	357.9	741.4
	6 x 2 x 2.5	23.7	411.4	861.4
	7 x 2 x 2.5	23.7	459.4	908.5
	8 x 2 x 2.5	24.9	518.4	995.6
	10 x 2 x 2.5	27.6	631.2	1179.8
	12 x 2 x 2.5	29.0	730.6	1343.0

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB-2YSL(St)Y

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB-2YSL(St)Y is an overall shielded cable intended for intrinsically safe circuits and explosive conditions zones.

Small mutual capacitance of cable circuits and good binary signal transfer is offered due to polyethylene insulation.

The cable is protected against interferences from external electric fields by means of an overall shield and emission of interferences out of the cable are reduced.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black polyethylene (PE) insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB-2YSL(St)Y

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	120	120	120	120	120

Operating voltage U ₀ /U	150 V	Operating temperature range	
Voltage test	2.0 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	5 GΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0.5	6.4	14.4	55.6
	3 x 0.5	6.7	19.2	61.2
	4 x 0.5	7.2	24.0	70.8
	5 x 0.5	7.6	28.8	82.3
	6 x 0.5	8.2	33.6	94.5
	7 x 0.5	8.2	38.4	98.0
	8 x 0.5	8.7	43.2	113.5
	10 x 0.5	9.9	52.8	129.8
	12 x 0.5	10.1	62.4	144.9
	14 x 0.5	10.6	72.0	161.3
	16 x 0.5	11.1	81.6	179.5
	18 x 0.5	11.6	91.2	198.5
	19 x 0.5	11.6	96.0	202.0
	21 x 0.5	12.1	105.6	224.2
	24 x 0.5	13.3	120.0	247.2
	25 x 0.5	13.6	124.8	262.1
	27 x 0.5	13.6	134.4	269.1
	30 x 0.5	14.0	148.8	292.2
	34 x 0.5	15.0	168.0	335.9
	36 x 0.5	15.0	177.6	342.9
	37 x 0.5	15.0	182.4	346.5
	40 x 0.5	15.6	196.8	375.4
	41 x 0.5	16.1	201.6	396.6
	44 x 0.5	16.8	216.0	405.1
	48 x 0.5	17.0	235.2	433.8
	50 x 0.5	17.5	244.8	456.6
	52 x 0.5	17.5	254.4	463.6
	56 x 0.5	18.4	273.6	512.4
	60 x 0.5	18.9	292.8	544.8
	2 x 0.75	6.8	19.2	63.3
	3 x 0.75	7.1	26.4	70.7
	4 x 0.75	7.6	33.6	82.9
	5 x 0.75	8.2	40.8	97.9
	6 x 0.75	8.7	48.0	112.6
	7 x 0.75	8.7	55.2	117.7

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	8 x 0.75	9.3	62.4	137.1
	10 x 0.75	10.6	76.8	157.5
	12 x 0.75	10.9	91.2	177.4
	14 x 0.75	11.4	105.6	199.2
	16 x 0.75	12.0	120.0	222.7
	18 x 0.75	12.6	134.4	246.5
	19 x 0.75	12.6	141.6	251.5
	21 x 0.75	13.1	156.0	280.5
	24 x 0.75	14.5	177.6	309.4
	25 x 0.75	14.8	184.8	328.9
	27 x 0.75	14.8	199.2	338.9
	30 x 0.75	15.3	220.8	369.2
	34 x 0.75	16.4	249.6	425.0
	36 x 0.75	16.4	264.0	435.1
	37 x 0.75	16.4	271.2	440.1
	40 x 0.75	16.9	292.8	477.6
	41 x 0.75	17.5	300.0	504.1
	44 x 0.75	18.7	321.6	532.8
	2 x 1.0	7.2	24.0	71.7
	3 x 1.0	7.5	33.6	81.4
	4 x 1.0	8.0	43.2	96.6
	5 x 1.0	8.6	52.8	115.1
	6 x 1.0	9.3	62.4	133.3
	7 x 1.0	9.3	72.0	140.3
	8 x 1.0	9.9	81.6	164.7
	10 x 1.0	11.4	100.8	190.0
	12 x 1.0	11.7	120.0	215.6
	14 x 1.0	12.2	139.2	242.6
	16 x 1.0	12.8	158.4	272.4
	18 x 1.0	13.5	177.6	302.9
	19 x 1.0	13.5	187.2	309.9
	21 x 1.0	14.1	206.4	345.5
	24 x 1.0	15.5	235.2	382.6
	25 x 1.0	15.9	244.8	406.1
	27 x 1.0	15.9	264.0	420.0

TECHNOKONTROL IB-2YSL(St)Y

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	30 x 1.0	16.4	292.8	459.4
	34 x 1.0	17.6	331.2	528.7
	36 x 1.0	17.6	350.4	542.6
	37 x 1.0	17.6	360.0	549.6
	40 x 1.0	18.7	388.8	614.3
	41 x 1.0	19.3	398.4	647.1
	2 x 1.5	8.2	36.0	95.5
	3 x 1.5	8.6	50.4	109.5
	4 x 1.5	9.3	64.8	131.8
	5 x 1.5	10.0	79.2	158.7
	6 x 1.5	10.8	93.6	185.4
	7 x 1.5	10.8	108.0	195.9
	8 x 1.5	11.6	122.4	232.0
	10 x 1.5	13.4	151.2	267.5
	12 x 1.5	13.8	180.0	306.0
	14 x 1.5	14.5	208.8	346.3
	16 x 1.5	15.2	237.6	391.2
	18 x 1.5	16.0	266.4	435.8
	19 x 1.5	16.0	280.8	446.4
	21 x 1.5	16.8	309.6	500.4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1.5	19.0	352.8	570.9
	25 x 1.5	19.4	367.2	606.7
	27 x 1.5	19.4	396.0	627.8
	30 x 1.5	20.1	439.2	687.2
	34 x 1.5	21.6	496.8	793.0
	2 x 2.5	9.0	55.2	121.6
	3 x 2.5	9.5	79.2	143.3
	4 x 2.5	10.2	103.2	176.2
	5 x 2.5	11.1	127.2	213.9
	6 x 2.5	12.0	151.2	252.7
	7 x 2.5	12.0	175.2	270.2
	8 x 2.5	12.9	199.2	320.0
	10 x 2.5	15.0	247.2	372.6
	12 x 2.5	15.5	295.2	430.3
	14 x 2.5	16.2	343.2	490.7
	16 x 2.5	17.1	391.2	555.8
	18 x 2.5	18.4	439.2	638.4
	19 x 2.5	18.4	463.2	655.9
	21 x 2.5	19.3	511.2	734.0
	24 x 2.5	21.4	583.2	815.3

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB1-YSLY

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB1-YSLY is a cable intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black PVC insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB1-YSLY

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	100	110	120	130	140

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	5.3	4.8	40.2
	2 x 0.5	7.8	9.6	79.6
	3 x 0.5	8.2	14.4	91.7
	4 x 0.5	8.9	19.2	107.7
	5 x 0.5	9.6	24.0	128.1
	6 x 0.5	10.4	28.8	148.9
	7 x 0.5	10.4	33.6	153.3
	8 x 0.5	11.1	38.4	182.4
	10 x 0.5	12.9	48.0	211.4
	12 x 0.5	13.3	57.6	235.7
	14 x 0.5	13.9	67.2	263.1
	16 x 0.5	14.6	76.8	294.9
	18 x 0.5	15.4	86.4	327.1
	19 x 0.5	15.4	91.2	331.5
	21 x 0.5	16.2	100.8	372.1
	24 x 0.5	18.3	115.2	428.8
	25 x 0.5	18.7	120.0	456.0
	27 x 0.5	19.4	129.6	473.3
	30 x 0.5	19.4	144.0	504.2
	34 x 0.5	20.8	163.2	583.5
	36 x 0.5	20.8	172.8	592.3
	37 x 0.5	20.8	177.6	596.7
	40 x 0.5	21.6	192.0	649.2
	41 x 0.5	22.4	196.8	691.2
	44 x 0.5	23.8	211.2	723.9
	48 x 0.5	24.1	230.4	771.7
	50 x 0.5	24.8	240.3	814.3
	52 x 0.5	24.8	249.6	823.1
	56 x 0.5	25.5	268.8	878.9
	60 x 0.5	26.3	288.0	935.2
	1 x 0.75	5.5	7.2	44.7
	2 x 0.75	8.2	14.4	89.5
	3 x 0.75	8.6	21.6	104.3
	4 x 0.75	9.3	28.8	123.4
	5 x 0.75	10.1	36.0	147.4

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	6 x 0.75	10.9	43.2	172.0
	7 x 0.75	10.9	50.4	178.0
	8 x 0.75	11.7	57.6	212.1
	10 x 0.75	13.6	72.0	246.6
	12 x 0.75	14.0	86.4	276.3
	14 x 0.75	14.7	100.8	309.5
	16 x 0.75	15.5	115.2	347.6
	18 x 0.75	16.3	129.6	386.3
	19 x 0.75	16.3	136.8	392.3
	21 x 0.75	17.1	151.2	440.6
	24 x 0.75	19.4	172.8	506.5
	25 x 0.75	19.8	180.0	538.5
	27 x 0.75	20.5	194.4	560.0
	30 x 0.75	20.5	216.0	598.6
	34 x 0.75	22.1	244.8	692.8
	36 x 0.75	22.1	259.2	705.0
	37 x 0.75	22.1	266.4	711.1
	40 x 0.75	22.9	288.0	774.1
	41 x 0.75	24.1	295.2	844.5
	44 x 0.75	25.2	316.8	861.1
	48 x 0.75	25.6	345.6	919.8
	50 x 0.75	26.3	360.0	970.3
	52 x 0.75	26.3	374.4	982.5
	56 x 0.75	27.1	403.2	1050.2
	60 x 0.75	27.9	432.0	1118.5
	1 x 1.0	5.7	9.6	66.40
	2 x 1.0	8.6	19.2	132.51
	3 x 1.0	9.0	28.8	160.22
	4 x 1.0	9.8	38.4	194.07
	5 x 1.0	10.6	48.0	233.59
	6 x 1.0	11.5	57.6	273.77
	7 x 1.0	11.5	67.2	291.64
	8 x 1.0	12.4	76.8	342.79
	10 x 1.0	14.4	96.0	406.23
	12 x 1.0	14.8	115.2	463.66

TECHNOKONTROL IB1-YSLY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	14 x 1.0	15.6	134.4	524.72
	16 x 1.0	16.4	153.6	591.42
	18 x 1.0	17.3	172.8	657.84
	19 x 1.0	17.3	182.4	677.00
	21 x 1.0	18.6	201.6	773.59
	24 x 1.0	20.6	230.4	864.25
	25 x 1.0	21.0	240.0	913.02
	27 x 1.0	21.8	259.2	959.38
	30 x 1.0	21.8	288.0	1038.93
	34 x 1.0	23.9	326.4	1213.15
	36 x 1.0	23.9	345.6	1248.90
	37 x 1.0	23.9	355.2	1267.65
	40 x 1.0	24.8	384.0	1374.66
	41 x 1.0	25.6	393.6	1443.81
	44 x 1.0	26.8	422.4	1495.69
	48 x 1.0	27.2	460.8	1607.75
	50 x 1.0	28.0	480.0	1687.88
	52 x 1.0	28.0	499.2	1724.86
	56 x 1.0	29.2	537.6	1874.15
	60 x 1.0	30.1	576.0	1967.15
	1 x 1.5	6.0	14.5	59.0
	2 x 1.5	9.2	29.0	121.8
	3 x 1.5	9.7	43.5	145.8
	4 x 1.5	10.5	58.0	175.3
	5 x 1.5	11.4	72.5	211.6
	6 x 1.5	12.4	87.0	248.6
	7 x 1.5	12.4	101.5	260.9
	8 x 1.5	13.4	116.0	311.3
	10 x 1.5	15.6	145.0	364.5
	12 x 1.5	16.1	174.0	413.0
	14 x 1.5	16.9	203.0	466.1
	16 x 1.5	18.2	232.0	542.3
	18 x 1.5	19.2	261.0	603.7
	19 x 1.5	19.2	275.5	616.0
	21 x 1.5	20.2	304.5	691.0
	24 x 1.5	22.4	348.0	769.6
	25 x 1.5	22.9	362.5	817.6
	27 x 1.5	24.1	391.5	875.9
	30 x 1.5	24.1	435.0	941.3
	34 x 1.5	26.0	493.0	1087.6

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	36 x 1.5	26.0	522.0	1112.2
	37 x 1.5	26.0	536.5	1124.5
	40 x 1.5	27.0	580.0	1223.7
	41 x 1.5	27.9	594.5	1295.4
	44 x 1.5	29.6	638.0	1354.7
	48 x 1.5	30.1	696.0	1451.7
	50 x 1.5	30.9	725.0	1529.6
	52 x 1.5	30.9	754.0	1554.2
	56 x 1.5	31.8	812.0	1663.7
	60 x 1.5	32.8	870.0	1773.9
	1 x 2.5	6.4	24.0	73.5
	2 x 2.5	10.0	48.0	154.0
	3 x 2.5	10.6	72.0	188.1
	4 x 2.5	11.5	96.0	228.8
	5 x 2.5	12.5	120.0	278.0
	6 x 2.5	13.6	144.0	328.0
	7 x 2.5	13.6	168.0	347.7
	8 x 2.5	14.7	192.0	414.6
	10 x 2.5	17.2	240.0	488.1
	12 x 2.5	17.8	288.0	557.3
	14 x 2.5	19.1	336.0	649.0
	16 x 2.5	20.1	384.0	733.1
	18 x 2.5	21.2	432.0	818.0
	19 x 2.5	21.2	456.0	837.6
	21 x 2.5	22.3	504.0	939.7
	24 x 2.5	25.2	516.0	1071.9
	25 x 2.5	25.8	600.0	1136.6
	27 x 2.5	26.7	648.0	1191.2
	30 x 2.5	26.7	720.0	1286.2
	34 x 2.5	29.2	816.0	1511.8
	36 x 2.5	29.2	864.0	1551.2
	37 x 2.5	29.2	888.0	1570.9
	40 x 2.5	30.3	960.0	1708.6
	41 x 2.5	31.4	984.0	1803.2
	44 x 2.5	32.8	1056.0	1856.8
	48 x 2.5	33.4	1152.0	1995.4
	50 x 2.5	34.3	1200.0	2101.1
	52 x 2.5	34.3	1248.0	2140.4
	56 x 2.5	35.3	1344.0	2294.2
	60 x 2.5	36.4	1440.0	2448.9

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB1-YSLY-P

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB1-YSLY P is a multipair cable intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

Mutual influence between signals transmitted along the cable and interferences from external fields are substantially reduced by the pair structure.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB1-YSLY-P

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	12.3	19.2	158.8		5 x 2 x 1.0	17.0	96.0	347.6
	3 x 2 x 0.5	12.9	28.8	195.6		6 x 2 x 1.0	18.5	115.2	404.8
	4 x 2 x 0.5	14.0	38.4	230.0		7 x 2 x 1.0	18.5	134.4	427.8
	5 x 2 x 0.5	15.3	48.0	262.5		8 x 2 x 1.0	19.7	153.6	469.7
	6 x 2 x 0.5	16.6	57.6	303.7		10 x 2 x 1.0	22.3	192.0	565.9
	7 x 2 x 0.5	16.6	67.2	317.7		12 x 2 x 1.0	23.3	230.4	641.4
	8 x 2 x 0.5	17.6	76.8	347.1		16 x 2 x 1.0	26.3	307.2	806.0
	10 x 2 x 0.5	19.8	96.0	415.5		20 x 2 x 1.0	29.2	384.0	981.2
	12 x 2 x 0.5	20.7	115.2	466.7					
	16 x 2 x 0.5	23.4	153.6	580.3		2 x 2 x 1.5	14.4	57.6	241.2
	18 x 2 x 0.5	24.5	172.8	635.8		3 x 2 x 1.5	15.4	86.4	309.1
	20 x 2 x 0.5	25.7	192.0	690.9		4 x 2 x 1.5	16.8	115.2	371.3
	25 x 2 x 0.5	28.5	240.0	844.2		5 x 2 x 1.5	18.4	144.0	430.3
	30 x 2 x 0.5	30.8	288.0	979.3		6 x 2 x 1.5	20.0	172.8	503.2
	40 x 2 x 0.5	35.4	384.0	1280.6		7 x 2 x 1.5	20.0	201.6	536.1
	50 x 2 x 0.5	39.2	480.0	1565.3		8 x 2 x 1.5	21.3	230.4	590.7
						10 x 2 x 1.5	24.2	288.0	714.6
						12 x 2 x 1.5	25.3	345.6	815.1
	2 x 2 x 0.75	12.9	28.8	178.3		16 x 2 x 1.5	28.8	460.8	1045.4
	3 x 2 x 0.75	13.6	43.2	222.2		20 x 2 x 1.5	32.0	576.0	1274.9
	4 x 2 x 0.75	14.8	57.6	262.9					
	5 x 2 x 0.75	16.1	72.0	301.4		2 x 2 x 2.5	15.9	96.0	304.0
	6 x 2 x 0.75	17.5	86.4	349.9		3 x 2 x 2.5	16.8	144.0	397.1
	7 x 2 x 0.75	17.5	100.8	368.0		4 x 2 x 2.5	18.5	192.0	482.3
	8 x 2 x 0.75	18.6	115.2	403.1		5 x 2 x 2.5	20.3	240.0	563.1
	10 x 2 x 0.75	21.0	144.0	484.2		6 x 2 x 2.5	22.1	288.0	661.5
	12 x 2 x 0.75	21.9	172.8	546.5		7 x 2 x 2.5	22.1	336.0	711.4
	16 x 2 x 0.75	24.8	230.4	683.2		8 x 2 x 2.5	23.5	384.0	787.1
	20 x 2 x 0.75	27.2	288.0	816.8		10 x 2 x 2.5	26.7	480.0	956.6
						12 x 2 x 2.5	28.1	576.0	1112.5
	2 x 2 x 1.0	13.6	38.4	201.2		16 x 2 x 2.5	32.2	768.0	1432.3
	3 x 2 x 1.0	14.3	57.6	253.6		20 x 2 x 2.5	35.7	960.0	1750.9
	4 x 2 x 1.0	15.6	76.8	301.9					

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB1-YSL(St)Y

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB1-YSL(St)Y is an overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

The cable is protected against interferences from external electric fields by means of an overall shield and emission of interferences out of the cable is reduced.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black PVC insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB1-YSL(St)Y

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	120	130	140	150	170

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0.5	8.0	14.4	78.3
	3 x 0.5	8.4	19.2	86.6
	4 x 0.5	9.1	24.0	102.1
	5 x 0.5	9.8	28.8	122.1
	6 x 0.5	10.6	33.6	141.8
	7 x 0.5	10.6	38.4	146.2
	8 x 0.5	11.3	43.2	174.1
	10 x 0.5	13.1	52.8	197.4
	12 x 0.5	13.5	62.4	222.6
	14 x 0.5	14.1	72.0	249.5
	16 x 0.5	14.8	81.6	280.9
	18 x 0.5	15.6	91.2	311.9
	19 x 0.5	15.6	96.0	316.3
	21 x 0.5	16.4	105.6	356.2
	24 x 0.5	18.5	120.0	406.9
	25 x 0.5	18.9	124.8	435.1
	27 x 0.5	18.9	134.4	443.8
	30 x 0.5	19.6	148.8	482.7
	34 x 0.5	21.0	168.0	560.4
	36 x 0.5	21.0	177.6	569.2
	37 x 0.5	21.0	182.4	577.0
	40 x 0.5	21.8	196.8	625.5
	41 x 0.5	22.6	201.6	666.3
	2 x 0.75	8.4	19.2	87.5
	3 x 0.75	8.8	26.4	97.2
	4 x 0.75	9.5	33.6	115.7
	5 x 0.75	10.3	40.8	139.2
	6 x 0.75	11.1	48.0	162.5
	7 x 0.75	11.1	55.2	168.6
	8 x 0.75	11.9	62.4	201.9
	10 x 0.75	13.8	76.8	229.1
	12 x 0.75	14.2	91.2	259.9
	14 x 0.75	14.9	105.6	293.0
	16 x 0.75	15.7	120.0	330.1
	18 x 0.75	16.5	134.4	368.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	19 x 0.75	16.5	141.6	374.0
	21 x 0.75	17.3	156.0	420.9
	24 x 0.75	19.6	177.6	479.7
	25 x 0.75	20.0	184.8	513.4
	27 x 0.75	20.0	199.2	525.6
	30 x 0.75	20.7	220.8	572.9
	34 x 0.75	22.3	249.6	665.3
	2 x 1.0	8.8	24.0	97.4
	3 x 1.0	9.2	33.6	109.6
	4 x 1.0	10.0	43.2	132.2
	5 x 1.0	10.8	52.8	159.4
	6 x 1.0	11.7	62.4	187.4
	7 x 1.0	11.7	72.0	195.6
	8 x 1.0	12.5	81.6	233.9
	10 x 1.0	14.6	100.8	266.5
	12 x 1.0	15.0	120.0	304.6
	14 x 1.0	15.8	139.2	344.0
	16 x 1.0	16.6	158.4	389.1
	18 x 1.0	17.5	177.6	433.9
	19 x 1.0	17.5	187.2	442.0
	21 x 1.0	18.7	206.4	515.1
	24 x 1.0	20.7	235.2	566.8
	25 x 1.0	21.2	244.8	605.8
	27 x 1.0	21.2	264.0	622.1
	30 x 1.0	21.9	292.8	680.1
	2 x 1.5	9.3	36.0	115.5
	3 x 1.5	9.8	50.4	132.4
	4 x 1.5	10.6	64.8	160.5
	5 x 1.5	11.5	79.2	195.1
	6 x 1.5	12.5	93.6	229.6
	7 x 1.5	12.5	108.0	241.5
	8 x 1.5	13.4	122.4	289.5
	10 x 1.5	15.6	151.2	331.3
	12 x 1.5	16.1	180.0	380.1

TECHNOKONTROL IB1-YSL(St)Y

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	14 x 1.5	16.9	208.8	431.7
	16 x 1.5	18.3	237.6	505.5
	18 x 1.5	19.2	266.4	563.7
	19 x 1.5	19.2	280.8	575.6
	21 x 1.5	20.1	309.6	647.4
	24 x 1.5	22.4	352.8	714.0
	25 x 1.5	22.8	367.2	762.4
	2 x 2.5	10.2	55.2	146.6
	3 x 2.5	10.8	79.2	171.6

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 2.5	11.7	103.2	212.1
	5 x 2.5	12.7	127.2	259.6
	6 x 2.5	13.8	151.2	308.1
	7 x 2.5	13.8	175.2	327.8
	8 x 2.5	14.9	199.2	393.3
	10 x 2.5	17.4	247.2	453.6
	12 x 2.5	18.4	295.2	542.0
	14 x 2.5	19.3	343.2	616.6
	16 x 2.5	20.3	391.2	699.6
	18 x 2.5	21.4	439.2	782.5

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB1-YSL(St)Y-P

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB1-YSL(St)Y P is a multipair and overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

Mutual influence between signals transmitted along the cable is substantially reduced by the pair structure.

The cable is protected against interferences from external electric fields by means of an overall shield.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB1-YSL(St)Y-P

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	12.4	24.0	167.1		5 x 2 x 1.0	17.1	100.8	354.8
	3 x 2 x 0.5	13.0	33.6	203.9		6 x 2 x 1.0	18.5	120.0	410.7
	4 x 2 x 0.5	14.1	43.2	238.1		7 x 2 x 1.0	18.5	139.2	433.8
	5 x 2 x 0.5	15.4	52.8	270.3		8 x 2 x 1.0	19.7	158.4	475.3
	6 x 2 x 0.5	16.7	62.4	310.6		10 x 2 x 1.0	22.3	196.8	570.6
	7 x 2 x 0.5	16.7	72.0	324.4		12 x 2 x 1.0	23.3	235.2	645.3
	8 x 2 x 0.5	17.7	81.6	353.6		16 x 2 x 1.0	26.3	312.0	809.7
	10 x 2 x 0.5	19.9	100.8	420.8		20 x 2 x 1.0	29.2	388.8	983.7
	12 x 2 x 0.5	20.8	120.0	471.8					
	16 x 2 x 0.5	23.5	158.4	583.9		2 x 2 x 1.5	14.5	64.8	246.9
	18 x 2 x 0.5	24.6	177.6	639.1		3 x 2 x 1.5	15.3	93.6	313.0
	20 x 2 x 0.5	25.8	196.8	694.6		4 x 2 x 1.5	16.8	122.4	373.4
	25 x 2 x 0.5	28.6	244.8	846.7		5 x 2 x 1.5	18.3	151.2	430.5
	30 x 2 x 0.5	30.9	292.8	980.9		6 x 2 x 1.5	19.9	180.0	501.0
	40 x 2 x 0.5	35.5	388.8	1280.1		7 x 2 x 1.5	19.9	208.8	532.9
	50 x 2 x 0.5	39.3	484.8	1562.8		8 x 2 x 1.5	21.2	237.6	585.8
						10 x 2 x 1.5	24.0	295.2	705.8
						12 x 2 x 1.5	25.1	352.8	804.0
						16 x 2 x 1.5	28.6	468.0	1027.5
						20 x 2 x 1.5	31.8	583.2	1250.2
	2 x 2 x 0.75	13.0	33.6	187.2		2 x 2 x 2.5	16.1	103.2	315.6
	3 x 2 x 0.75	13.7	48.0	231.2		3 x 2 x 2.5	17.0	151.2	409.1
	4 x 2 x 0.75	14.9	62.4	271.9		4 x 2 x 2.5	18.6	199.2	494.1
	5 x 2 x 0.75	16.3	76.8	310.2		5 x 2 x 2.5	20.4	247.2	575.3
	6 x 2 x 0.75	17.6	91.2	358.5		6 x 2 x 2.5	22.2	295.2	673.4
	7 x 2 x 0.75	17.6	105.6	376.5		7 x 2 x 2.5	22.2	343.2	723.4
	8 x 2 x 0.75	18.7	120.0	411.4		8 x 2 x 2.5	23.7	391.2	798.9
	10 x 2 x 0.75	21.1	148.8	491.6		10 x 2 x 2.5	26.9	487.2	968.7
	12 x 2 x 0.75	22.1	177.6	553.9		12 x 2 x 2.5	28.4	583.2	1124.6
	16 x 2 x 0.75	24.9	235.2	690.6		16 x 2 x 2.5	32.4	775.2	1433.7
	20 x 2 x 0.75	27.4	292.8	823.9		20 x 2 x 2.5	35.9	967.2	1749.8
	2 x 2 x 1.0	13.6	43.2	208.7					
	3 x 2 x 1.0	14.3	62.4	261.5					
	4 x 2 x 1.0	15.6	81.6	309.4					

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB1-YSL(St)Y PIMF

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB1-YSL(St)Y PIMF is a multipair, pair and overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

Mutual influence between signals transmitted along the cable is substantially reduced by the individually shielded pair structure.

The cable is protected against interferences from external electric fields by means of an overall electrostatic shield.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- electrostatic shield over each pair, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB1-YSL(St)Y PIMF

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	12.7	33.6	186.6		6 x 2 x 1.0	19.0	148.8	466.9
	3 x 2 x 0.5	13.4	48.0	231.6		7 x 2 x 1.0	19.0	172.8	497.1
	4 x 2 x 0.5	14.5	62.4	273.7		8 x 2 x 1.0	20.2	196.8	546.1
	5 x 2 x 0.5	15.9	76.8	313.6		10 x 2 x 1.0	22.9	244.8	658.2
	6 x 2 x 0.5	17.2	91.2	362.9		12 x 2 x 1.0	24.0	292.8	749.6
	7 x 2 x 0.5	17.2	105.6	383.3		16 x 2 x 1.0	27.1	388.8	946.3
	8 x 2 x 0.5	18.2	120.0	419.4		20 x 2 x 1.0	30.1	484.8	1153.3
	10 x 2 x 0.5	20.6	148.8	502.9					
	12 x 2 x 0.5	21.5	177.6	568.3		2 x 2 x 1.5	14.9	79.2	272.0
	16 x 2 x 0.5	24.2	235.2	711.2		3 x 2 x 1.5	15.7	115.2	349.7
	18 x 2 x 0.5	25.5	264.0	782.2		4 x 2 x 1.5	17.2	151.2	420.6
	20 x 2 x 0.5	26.6	292.8	851.9		5 x 2 x 1.5	18.8	187.2	487.9
	25 x 2 x 0.5	29.5	364.8	1042.6		6 x 2 x 1.5	20.4	223.2	569.6
	30 x 2 x 0.5	32.2	436.8	1229.7		7 x 2 x 1.5	20.4	259.2	610.6
						8 x 2 x 1.5	21.7	295.2	672.9
	2 x 2 x 0.75	13.4	43.2	207.9		10 x 2 x 1.5	24.7	367.2	813.8
	3 x 2 x 0.75	14.1	62.4	261.5		12 x 2 x 1.5	25.8	439.2	932.3
	4 x 2 x 0.75	15.3	81.6	310.0		16 x 2 x 1.5	29.4	583.2	1196.9
	5 x 2 x 0.75	16.7	100.8	356.6		20 x 2 x 1.5	32.6	727.2	1460.7
	6 x 2 x 0.75	18.1	120.0	413.9					
	7 x 2 x 0.75	18.1	139.2	439.1		2 x 2 x 2.5	16.4	117.6	342.1
	8 x 2 x 0.75	19.3	158.4	482.1		3 x 2 x 2.5	17.3	172.8	447.9
	10 x 2 x 0.75	21.8	196.8	579.1		4 x 2 x 2.5	19.0	228.0	544.1
	12 x 2 x 0.75	22.8	235.2	657.4		5 x 2 x 2.5	20.9	283.2	635.5
	16 x 2 x 0.75	25.7	312.0	827.1		6 x 2 x 2.5	22.7	338.4	745.3
	20 x 2 x 0.75	28.5	388.8	1006.4		7 x 2 x 2.5	22.7	393.6	804.9
						8 x 2 x 2.5	24.2	448.8	891.0
	2 x 2 x 1.0	14.0	52.8	230.1		10 x 2 x 2.5	27.5	559.2	1083.2
	3 x 2 x 1.0	14.7	76.8	291.3		12 x 2 x 2.5	29.1	669.6	1260.6
	4 x 2 x 1.0	16.1	100.8	347.7		16 x 2 x 2.5	33.1	890.4	1613.1
	5 x 2 x 1.0	17.6	124.8	401.3		20 x 2 x 2.5	36.8	1111.2	1972.6

Other cross-sections and pair counts available on request.

TECHNOKONTROL IB1-YSLCY

INTRINSICALLY SAFE CABLES**APPLICATIONS**

TECHNOKONTROL IB1-YSLCY is a shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

The cable is protected against interferences from external electromagnetic fields by means of an overall shield and emission of interferences out of the cable is reduced.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- black PVC insulation and white conductor number printed on it,
- insulated conductors laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- tinned copper wire braid shield of coverage bigger than 80%,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

AVAILABLE UPON REQUEST

TECHNOKONTROL IB1-YSLCEY – cable with a flexible drain wire stranded of tin-plated annealed copper wires, (class 2) laid under the shield.

TECHNOKONTROL IB1-YSLCY

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	120	130	140	150	170

Operating voltage U_o/U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	5.8	13.6	48.0
	2 x 0.5	8.4	26.3	91.2
	3 x 0.5	8.8	32.8	100.8
	4 x 0.5	9.5	40.2	118.9
	5 x 0.5	10.2	46.3	139.9
	6 x 0.5	11.1	59.3	168.6
	7 x 0.5	11.1	64.1	173.0
	8 x 0.5	11.8	72.1	204.1
	10 x 0.5	13.6	88.9	234.0
	12 x 0.5	14.0	99.4	260.1
	14 x 0.5	14.6	112.2	290.2
	16 x 0.5	15.5	142.3	343.0
	18 x 0.5	16.3	153.3	375.4
	19 x 0.5	16.3	158.1	379.8
	21 x 0.5	17.1	171.9	423.6
	24 x 0.5	19.2	194.2	482.5
	25 x 0.5	19.8	222.3	535.5
	27 x 0.5	19.8	231.9	544.2
	30 x 0.5	20.5	250.1	586.8
	34 x 0.5	21.9	278.4	673.4
	36 x 0.5	21.9	288.0	682.1
	37 x 0.5	21.9	292.8	686.5
	40 x 0.5	22.7	311.9	742.9
	41 x 0.5	23.9	321.9	810.3
	1 x 0.75	6.0	16.3	52.3
	2 x 0.75	8.8	32.8	101.6
	3 x 0.75	9.2	40.6	112.0
	4 x 0.75	9.9	50.2	132.9
	5 x 0.75	10.7	60.5	159.2
	6 x 0.75	11.6	76.0	191.5
	7 x 0.75	11.6	83.2	197.6
	8 x 0.75	12.4	94.5	234.7
	10 x 0.75	14.3	115.6	268.3
	12 x 0.75	14.7	131.4	300.5
	14 x 0.75	15.6	166.3	355.1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	16 x 0.75	16.4	182.6	394.0
	18 x 0.75	17.2	202.4	437.1
	19 x 0.75	17.2	209.6	443.1
	21 x 0.75	18.4	227.3	509.8
	24 x 0.75	20.5	278.9	583.9
	25 x 0.75	20.9	291.0	622.0
	27 x 0.75	20.9	308.1	636.7
	30 x 0.75	21.6	329.7	684.3
	34 x 0.75	23.2	368.2	786.1
	1 x 1.0	6.2	20.1	58.2
	2 x 1.0	9.2	38.2	112.6
	3 x 1.0	9.6	49.8	126.7
	4 x 1.0	10.4	61.2	150.9
	5 x 1.0	11.3	80.8	188.9
	6 x 1.0	12.2	92.5	218.9
	7 x 1.0	12.2	102.1	227.0
	8 x 1.0	13.1	115.0	268.9
	10 x 1.0	15.1	142.0	309.0
	12 x 1.0	15.7	180.7	367.7
	14 x 1.0	16.5	202.3	409.7
	16 x 1.0	17.3	226.4	459.5
	18 x 1.0	18.6	249.5	525.1
	19 x 1.0	18.6	259.1	533.3
	21 x 1.0	19.7	303.9	617.3
	24 x 1.0	21.7	344.1	680.2
	25 x 1.0	22.1	357.0	722.6
	27 x 1.0	22.1	376.2	739.0
	30 x 1.0	22.9	410.2	802.1
	1 x 1.5	6.5	25.0	66.4
	2 x 1.5	9.8	49.8	132.4
	3 x 1.5	10.3	66.8	152.2
	4 x 1.5	11.2	90.4	191.0
	5 x 1.5	12.1	106.9	228.4
	6 x 1.5	13.1	124.9	267.4

TECHNOKONTROL IB1-YSLCY

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 1.5	13.1	139.3	279.7
	8 x 1.5	14.1	157.6	332.6
	10 x 1.5	16.5	211.9	402.0
	12 x 1.5	17.0	245.6	457.5
	14 x 1.5	18.2	276.5	528.3
	16 x 1.5	19.1	309.4	592.1
	18 x 1.5	20.3	364.5	679.7
	19 x 1.5	20.3	378.9	692.0
	21 x 1.5	21.3	416.1	773.9
	24 x 1.5	23.9	470.7	875.0
	25 x 1.5	24.4	489.7	929.7

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 2.5	6.9	37.1	81.8
	2 x 2.5	10.7	77.3	170.1
	3 x 2.5	11.3	104.8	198.7
	4 x 2.5	12.2	132.9	242.9
	5 x 2.5	13.2	159.2	292.7
	6 x 2.5	14.3	187.2	345.0
	7 x 2.5	14.3	211.2	364.6
	8 x 2.5	15.6	257.5	453.4
	10 x 2.5	18.5	316.1	540.5
	12 x 2.5	19.3	390.3	640.4
	14 x 2.5	20.2	441.3	718.0
	16 x 2.5	21.2	497.7	809.0
	18 x 2.5	22.3	550.9	897.1

Other cross-sections and conductor counts available on request.

TECHNOKONTROL IB1-YSLYCY-P

INTRINSICALLY SAFE CABLES



APPLICATIONS

TECHNOKONTROL IB1-YSLYCY P is a multipair and overall shielded cable, intended for intrinsically safe circuits and explosive conditions zones, designed for the operating voltage 0.6/1 kV.

Mutual influence between signals transmitted along the cable is substantially reduced by the pair structure.

The cable is protected against interferences from external electromagnetic fields by means of an overall shield and emission of interferences out of the cable is reduced.

Tensile strength of the cable is increased by an inner sheath.

The cable is designed to offer high flexibility combined with tensile strength.

Sheathing PVC is UV radiation and weather resistant, is self-extinguishing and flame retardant and its oxygen index is bigger than 29%.

The cable is 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 cable is 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 and DIN VDE 0295,
- 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 stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- PVC inner sheath
- tinned copper wire braid shield of coverage bigger than 80%,
- oil, petrol and UV radiation highly resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 chapter 6.1.3.2.3.

TECHNOKONTROL IB1-YSLYCY-P

CHARACTERISTICS

Conductor cross-section	mm ²	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_0/U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Inductance, approximate	0.7 mH/km	for movable installation	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	7.5 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
		Reference standards	PN-EN 60811-2-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	15.9	84.7	318.5		5 x 2 x 1.0	21.2	207.0	604.7
	3 x 2 x 0.5	16.5	96.7	362.0		6 x 2 x 1.0	22.7	235.1	681.0
	4 x 2 x 0.5	17.6	111.7	408.9		7 x 2 x 1.0	22.7	254.3	704.3
	5 x 2 x 0.5	19.5	152.5	499.1		8 x 2 x 1.0	24.3	281.0	783.9
	6 x 2 x 0.5	20.8	165.5	552.8		10 x 2 x 1.0	26.9	335.5	917.3
	7 x 2 x 0.5	20.8	175.1	566.8		12 x 2 x 1.0	27.9	381.6	1009.2
	8 x 2 x 0.5	21.8	195.7	614.3		14 x 2 x 1.0	29.9	429.3	1141.8
	10 x 2 x 0.5	24.4	229.1	734.8		16 x 2 x 1.0	31.5	513.8	1284.9
	12 x 2 x 0.5	25.3	249.6	794.7		18 x 2 x 1.0	32.9	560.3	1386.7
	14 x 2 x 0.5	26.7	276.2	870.4		20 x 2 x 1.0	34.4	608.2	1504.5
	16 x 2 x 0.5	28.0	304.8	946.2					
	18 x 2 x 0.5	29.5	331.2	1045.4		2 x 2 x 1.5	18.0	132.5	436.3
	20 x 2 x 0.5	30.7	357.0	1117.6		3 x 2 x 1.5	19.2	165.4	512.7
	24 x 2 x 0.5	33.0	445.1	1299.6		4 x 2 x 1.5	20.9	223.1	614.2
	25 x 2 x 0.5	33.7	460.9	1354.1		5 x 2 x 1.5	22.4	262.9	694.2
						6 x 2 x 1.5	24.0	305.9	812.8
	2 x 2 x 0.75	16.5	96.2	344.7		7 x 2 x 1.5	24.0	334.7	844.9
	3 x 2 x 0.75	17.2	114.3	397.2		8 x 2 x 1.5	25.7	366.1	910.9
	4 x 2 x 0.75	18.8	134.3	468.3		10 x 2 x 1.5	28.5	442.6	1073.7
	5 x 2 x 0.75	20.4	177.3	546.7		12 x 2 x 1.5	30.0	506.1	1214.2
	6 x 2 x 0.75	21.7	205.3	618.8		14 x 2 x 1.5	32.0	612.4	1386.4
	7 x 2 x 0.75	21.7	219.7	637.0		16 x 2 x 1.5	33.7	681.7	1533.1
	8 x 2 x 0.75	22.8	235.1	680.7					
	10 x 2 x 0.75	25.6	279.7	818.3		2 x 2 x 2.5	20.2	201.3	544.8
	12 x 2 x 0.75	26.6	322.4	902.8		3 x 2 x 2.5	21.1	253.9	649.7
	14 x 2 x 0.75	28.1	352.8	985.2		4 x 2 x 2.5	22.7	311.9	756.7
	16 x 2 x 0.75	29.8	390.9	1100.7		5 x 2 x 2.5	24.9	374.4	887.8
	18 x 2 x 0.75	31.3	465.8	1228.0		6 x 2 x 2.5	26.7	431.5	1009.7
	20 x 2 x 0.75	32.5	499.9	1311.1		7 x 2 x 2.5	26.7	479.5	1060.4
						8 x 2 x 2.5	28.2	536.9	1157.2
	2 x 2 x 1.0	17.2	111.2	376.7		10 x 2 x 2.5	32.0	689.2	1440.1
	3 x 2 x 1.0	18.3	133.1	453.5		12 x 2 x 2.5	33.5	793.7	1618.6
	4 x 2 x 1.0	19.8	181.3	541.9					

Other cross-sections and pair counts available on request.

D – Control and signal cables for 0.6/1 kV

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 and DIN VDE 0295,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYY 0.6/1 kV

TECHNOFLEKS LiYYżo 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	100 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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	4,7	4,8	30,0
	2 x 0,5	7,3	9,6	69,0
	3 x 0,5	7,7	14,4	80,5
	4 x 0,5	8,3	19,2	95,5
	5 x 0,5	9,1	24,0	111,5
	6 x 0,5	9,8	28,8	127,5
	7 x 0,5	9,8	33,6	139,5
	8 x 0,5	11,2	38,4	158,5
	10 x 0,5	12,6	48,0	194,5
	12 x 0,5	12,9	57,6	220,0
	14 x 0,5	13,6	67,2	247,5
	16 x 0,5	14,3	76,8	275,5
	18 x 0,5	15,1	86,4	303,5
	19 x 0,5	15,1	91,2	315,0
	21 x 0,5	16,5	100,8	347,5
	24 x 0,5	18,0	115,2	405,5
	25 x 0,5	18,3	120,0	419,0
	27 x 0,5	18,4	129,6	443,0
	30 x 0,5	19,1	144,0	482,5
	34 x 0,5	20,1	163,2	536,0
	36 x 0,5	20,6	172,8	562,5
	37 x 0,5	20,6	177,6	574,0
	40 x 0,5	22,0	192,0	619,0
	41 x 0,5	22,2	196,8	632,5
	44 x 0,5	23,5	211,2	694,5
	48 x 0,5	23,9	230,4	743,5
	50 x 0,5	24,4	240,0	771,0
	52 x 0,5	24,6	249,6	795,0
	56 x 0,5	25,3	268,8	847,0
	60 x 0,5	26,1	288,0	899,5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,75	5,0	7,2	35,0
	2 x 0,75	7,8	14,4	81,5
	3 x 0,75	8,2	21,6	96,0
	4 x 0,75	8,9	28,8	115,0
	5 x 0,75	9,8	36,0	135,0
	6 x 0,75	10,6	43,2	155,5
	7 x 0,75	10,6	50,4	170,5
	8 x 0,75	12,1	57,6	194,0
	10 x 0,75	13,6	72,0	238,0
	12 x 0,75	14,0	86,4	271,0
	14 x 0,75	14,7	100,8	306,0
	16 x 0,75	15,6	115,2	341,0
	18 x 0,75	16,4	129,6	377,0
	19 x 0,75	16,4	136,8	391,5
	21 x 0,75	18,3	151,2	448,5
	24 x 0,75	19,6	172,8	503,0
	25 x 0,75	19,9	180,0	520,0
	27 x 0,75	20,0	194,4	551,0
	30 x 0,75	20,7	216,0	601,0
	34 x 0,75	21,8	244,8	669,5
	36 x 0,75	22,4	259,2	703,5
	37 x 0,75	22,4	266,4	718,5
	40 x 0,75	24,3	288,0	796,5
	41 x 0,75	24,6	295,2	813,5
	44 x 0,75	25,6	316,8	867,0
	48 x 0,75	26,0	345,6	930,0
	50 x 0,75	26,6	360,0	965,0
	52 x 0,75	26,7	374,4	996,0
	56 x 0,75	27,6	403,2	1062,5
	60 x 0,75	28,8	432,0	1154,5

TECHNOFLEKS LiYY 0.6/1 kV
TECHNOFLEKS LiYYžo 0.6/1 kV

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 1,0	5,1	9,6	38,0
	2 x 1,0	8,0	19,2	89,5
	3 x 1,0	8,4	28,8	107,0
	4 x 1,0	9,2	38,4	129,0
	5 x 1,0	10,0	48,0	151,5
	6 x 1,0	10,9	57,6	175,0
	7 x 1,0	10,9	67,2	193,0
	8 x 1,0	12,7	76,8	225,5
	10 x 1,0	14,0	96,0	270,0
	12 x 1,0	14,4	115,2	308,5
	14 x 1,0	15,2	134,4	349,5
	16 x 1,0	16,0	153,6	390,5
	18 x 1,0	16,9	172,8	432,0
	19 x 1,0	16,9	182,4	450,0
	21 x 1,0	18,9	201,6	513,0
	24 x 1,0	20,2	230,4	576,5
	25 x 1,0	20,5	240,0	596,5
	27 x 1,0	20,6	259,2	633,0
	30 x 1,0	21,4	288,0	692,0
	34 x 1,0	22,5	326,4	772,0
	36 x 1,0	23,5	345,6	832,5
	37 x 1,0	23,5	355,2	850,0
	40 x 1,0	25,1	384,0	917,0
	41 x 1,0	25,4	393,6	937,5
	44 x 1,0	26,4	422,4	999,5
	48 x 1,0	26,8	460,8	1074,0
	50 x 1,0	27,4	480,0	1114,5
	52 x 1,0	27,6	499,2	1151,5
	56 x 1,0	28,8	537,6	1255,0
	60 x 1,0	29,7	576,0	1334,0
	1 x 1,5	5,4	14,5	45,5
	2 x 1,5	8,6	29,0	108,0
	3 x 1,5	9,1	43,5	131,0
	4 x 1,5	9,9	58,0	159,0
	5 x 1,5	10,8	72,5	188,5
	6 x 1,5	11,8	87,0	218,0
	7 x 1,5	11,8	101,5	242,0
	8 x 1,5	13,7	116,0	281,5
	10 x 1,5	15,2	145,0	338,5
	12 x 1,5	15,7	174,0	389,0
	14 x 1,5	16,5	203,0	442,0
	16 x 1,5	17,8	232,0	511,0
	18 x 1,5	18,8	261,0	565,5
	19 x 1,5	18,8	275,5	589,0
	21 x 1,5	20,5	304,5	650,0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1,5	22,0	348,0	732,0
	25 x 1,5	22,3	362,5	758,0
	27 x 1,5	22,5	391,5	806,0
	30 x 1,5	23,7	435,0	904,0
	34 x 1,5	25,0	493,0	1008,5
	36 x 1,5	25,6	522,0	1061,0
	37 x 1,5	25,6	536,5	1084,5
	40 x 1,5	27,3	580,0	1170,5
	41 x 1,5	27,7	594,5	1197,0
	44 x 1,5	29,2	638,0	1303,0
	48 x 1,5	29,7	696,0	1401,0
	50 x 1,5	30,3	725,0	1454,5
	52 x 1,5	30,5	754,0	1503,0
	56 x 1,5	31,4	812,0	1606,0
	60 x 1,5	32,4	870,0	1709,0
	1 x 2,5	5,8	24,0	58,5
	2 x 2,5	9,4	48,0	140,0
	3 x 2,5	9,9	72,0	174,0
	4 x 2,5	10,9	96,0	213,5
	5 x 2,5	11,9	120,0	255,0
	6 x 2,5	13,2	144,0	302,5
	7 x 2,5	13,2	168,0	337,5
	8 x 2,5	15,2	192,0	384,0
	10 x 2,5	16,8	240,0	465,5
	12 x 2,5	17,3	288,0	538,0
	14 x 2,5	18,7	336,0	630,5
	16 x 2,5	19,7	384,0	708,0
	18 x 2,5	20,8	432,0	786,0
	19 x 2,5	20,8	456,0	820,5
	21 x 2,5	22,8	504,0	906,0
	24 x 2,5	24,8	576,0	1044,5
	25 x 2,5	25,2	600,0	1082,5
	27 x 2,5	25,3	648,0	1153,0
	30 x 2,5	26,3	720,0	1265,0
	34 x 2,5	27,7	816,0	1416,0
	36 x 2,5	28,8	864,0	1516,5
	37 x 2,5	28,8	888,0	1551,0
	40 x 2,5	30,8	960,0	1674,5
	41 x 2,5	31,1	984,0	1712,5
	44 x 2,5	32,4	1056,0	1828,5
	48 x 2,5	32,9	1152,0	1972,0
	50 x 2,5	33,7	1200,0	2048,0
	52 x 2,5	33,9	1248,0	2119,5
	56 x 2,5	34,9	1344,0	2267,5
	60 x 2,5	36,0	1440,0	2416,5

Other cross-sections and conductor counts available upon request.

TECHNOFLEKS LiYY-Nr 0.6/1 kV
TECHNOFLEKS LiYYžo-Nr 0.6/1 kV**CONTROL AND POWER SUPPLY FLEXIBLE CABLES****APPLICATIONS**

TECHNOFLEKS LiYY-Nr 0.6/1 kV and **TECHNOFLEKS LiYYžo-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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in **TECHNOFLEKS LiYYžo-Nr 0,6/1 kV** cable,
- insulated conductors laid-up in layers - green-yellow protective conductor located in the outer layer in **TECHNOFLEKS LiYYžo 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 LiYYžo-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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOFLEKS LiY11Y-Nr 0.6/1 kV and **TECHNOFLEKS LiY11Yžo-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 LiYY-Nr 0.6/1 kV

TECHNOFLEKS LiYYżo-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,5	4,7	4,8	30,0
	2 x 0,5	7,3	9,6	69,0
	3 x 0,5	7,7	14,4	80,5
	4 x 0,5	8,3	19,2	95,5
	5 x 0,5	9,1	24,0	111,5
	6 x 0,5	9,8	28,8	127,5
	7 x 0,5	9,8	33,6	139,5
	8 x 0,5	11,2	38,4	158,5
	10 x 0,5	12,6	48,0	194,5
	12 x 0,5	12,9	57,6	220,0
	14 x 0,5	13,6	67,2	247,5
	16 x 0,5	14,3	76,8	275,5
	18 x 0,5	15,1	86,4	303,5
	19 x 0,5	15,1	91,2	315,0
	21 x 0,5	16,5	100,8	347,5
	24 x 0,5	18,0	115,2	405,5
	25 x 0,5	18,3	120,0	419,0
	27 x 0,5	18,4	129,6	443,0
	30 x 0,5	19,1	144,0	482,5
	34 x 0,5	20,1	163,2	536,0
	36 x 0,5	20,6	172,8	562,5
	37 x 0,5	20,6	177,6	574,0
	40 x 0,5	22,0	192,0	619,0
	41 x 0,5	22,2	196,8	632,5
	44 x 0,5	23,5	211,2	694,5
	48 x 0,5	23,9	230,4	743,5
	50 x 0,5	24,4	240,0	771,0
	52 x 0,5	24,6	249,6	795,0
	56 x 0,5	25,3	268,8	847,0
	60 x 0,5	26,1	288,0	899,5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0,75	5,0	7,2	35,0
	2 x 0,75	7,8	14,4	81,5
	3 x 0,75	8,2	21,6	96,0
	4 x 0,75	8,9	28,8	115,0
	5 x 0,75	9,8	36,0	135,0
	6 x 0,75	10,6	43,2	155,5
	7 x 0,75	10,6	50,4	170,5
	8 x 0,75	12,1	57,6	194,0
	10 x 0,75	13,6	72,0	238,0
	12 x 0,75	14,0	86,4	271,0
	14 x 0,75	14,7	100,8	306,0
	16 x 0,75	15,6	115,2	341,0
	18 x 0,75	16,4	129,6	377,0
	19 x 0,75	16,4	136,8	391,5
	21 x 0,75	18,3	151,2	448,5
	24 x 0,75	19,6	172,8	503,0
	25 x 0,75	19,9	180,0	520,0
	27 x 0,75	20,0	194,4	551,0
	30 x 0,75	20,7	216,0	601,0
	34 x 0,75	21,8	244,8	669,5
	36 x 0,75	22,4	259,2	703,5
	37 x 0,75	22,4	266,4	718,5
	40 x 0,75	24,3	288,0	796,5
	41 x 0,75	24,6	295,2	813,5
	44 x 0,75	25,6	316,8	867,0
	48 x 0,75	26,0	345,6	930,0
	50 x 0,75	26,6	360,0	965,0
	52 x 0,75	26,7	374,4	996,0
	56 x 0,75	27,6	403,2	1062,5
	60 x 0,75	28,8	432,0	1154,5

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.)
	number x mm ²	mm	kg/km	kg/km
	1 x 1,0	5,1	9,6	38,0
	2 x 1,0	8,0	19,2	89,5
	3 x 1,0	8,4	28,8	107,0
	4 x 1,0	9,2	38,4	129,0
	5 x 1,0	10,0	48,0	151,5
	6 x 1,0	10,9	57,6	175,0
	7 x 1,0	10,9	67,2	193,0
	8 x 1,0	12,7	76,8	225,5
	10 x 1,0	14,0	96,0	270,0
	12 x 1,0	14,4	115,2	308,5
	14 x 1,0	15,2	134,4	349,5
	16 x 1,0	16,0	153,6	390,5
	18 x 1,0	16,9	172,8	432,0
	19 x 1,0	16,9	182,4	450,0
	21 x 1,0	18,9	201,6	513,0
	24 x 1,0	20,2	230,4	576,5
	25 x 1,0	20,5	240,0	596,5
	27 x 1,0	20,6	259,2	633,0
	30 x 1,0	21,4	288,0	692,0
	34 x 1,0	22,5	326,4	772,0
	36 x 1,0	23,5	345,6	832,5
	37 x 1,0	23,5	355,2	850,0
	40 x 1,0	25,1	384,0	917,0
	41 x 1,0	25,4	393,6	937,5
	44 x 1,0	26,4	422,4	999,5
	48 x 1,0	26,8	460,8	1074,0
	50 x 1,0	27,4	480,0	1114,5
	52 x 1,0	27,6	499,2	1151,5
	56 x 1,0	28,8	537,6	1255,0
	60 x 1,0	29,7	576,0	1334,0
	1 x 1,5	5,4	14,5	45,5
	2 x 1,5	8,6	29,0	108,0
	3 x 1,5	9,1	43,5	131,0
	4 x 1,5	9,9	58,0	159,0
	5 x 1,5	10,8	72,5	188,5
	6 x 1,5	11,8	87,0	218,0
	7 x 1,5	11,8	101,5	242,0
	8 x 1,5	13,7	116,0	281,5
	10 x 1,5	15,2	145,0	338,5
	12 x 1,5	15,7	174,0	389,0
	14 x 1,5	16,5	203,0	442,0
	16 x 1,5	17,8	232,0	511,0
	18 x 1,5	18,8	261,0	565,5
	19 x 1,5	18,8	275,5	589,0
	21 x 1,5	20,5	304,5	650,0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	24 x 1,5	22,0	348,0	732,0
	25 x 1,5	22,3	362,5	758,0
	27 x 1,5	22,5	391,5	806,0
	30 x 1,5	23,7	435,0	904,0
	34 x 1,5	25,0	493,0	1008,5
	36 x 1,5	25,6	522,0	1061,0
	37 x 1,5	25,6	536,5	1084,5
	40 x 1,5	27,3	580,0	1170,5
	41 x 1,5	27,7	594,5	1197,0
	44 x 1,5	29,2	638,0	1303,0
	48 x 1,5	29,7	696,0	1401,0
	50 x 1,5	30,3	725,0	1454,5
	52 x 1,5	30,5	754,0	1503,0
	56 x 1,5	31,4	812,0	1606,0
	60 x 1,5	32,4	870,0	1709,0
	1 x 2,5	5,8	24,0	58,5
	2 x 2,5	9,4	48,0	140,0
	3 x 2,5	9,9	72,0	174,0
	4 x 2,5	10,9	96,0	213,5
	5 x 2,5	11,9	120,0	255,0
	6 x 2,5	13,2	144,0	302,5
	7 x 2,5	13,2	168,0	337,5
	8 x 2,5	15,2	192,0	384,0
	10 x 2,5	16,8	240,0	465,5
	12 x 2,5	17,3	288,0	538,0
	14 x 2,5	18,7	336,0	630,5
	16 x 2,5	19,7	384,0	708,0
	18 x 2,5	20,8	432,0	786,0
	19 x 2,5	20,8	456,0	820,5
	21 x 2,5	22,8	504,0	906,0
	24 x 2,5	24,8	576,0	1044,5
	25 x 2,5	25,2	600,0	1082,5
	27 x 2,5	25,3	648,0	1153,0
	30 x 2,5	26,3	720,0	1265,0
	34 x 2,5	27,7	816,0	1416,0
	36 x 2,5	28,8	864,0	1516,5
	37 x 2,5	28,8	888,0	1551,0
	40 x 2,5	30,8	960,0	1674,5
	41 x 2,5	31,1	984,0	1712,5
	44 x 2,5	32,4	1056,0	1828,5
	48 x 2,5	32,9	1152,0	1972,0
	50 x 2,5	33,7	1200,0	2048,0
	52 x 2,5	33,9	1248,0	2119,5
	56 x 2,5	34,9	1344,0	2267,5
	60 x 2,5	36,0	1440,0	2416,5

Other cross-sections and conductor counts available upon request.

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 and DIN VDE 0295,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYY-P 0.6/1 kV** cable; black and brown insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYY-P-Nr 0.6/1 kV** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYY-P 0.6/1 kV

TECHNOFLEKS LiYY-P-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	100 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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0,5	10,8	19,2	92,5
	3 x 2 x 0,5	11,5	28,8	118,0
	4 x 2 x 0,5	12,6	38,4	146,0
	5 x 2 x 0,5	13,9	48,0	174,5
	6 x 2 x 0,5	15,4	57,6	210,5
	7 x 2 x 0,5	15,4	67,2	232,5
	8 x 2 x 0,5	16,4	76,8	260,5
	10 x 2 x 0,5	19,1	96,0	334,5
	12 x 2 x 0,5	20,0	115,2	384,5
	16 x 2 x 0,5	22,6	153,6	490,5
	18 x 2 x 0,5	24,2	172,8	564,0
	20 x 2 x 0,5	25,4	192,0	617,0
	25 x 2 x 0,5	28,0	240,0	747,0
	30 x 2 x 0,5	30,3	288,0	875,5
	40 x 2 x 0,5	34,9	384,0	1159,0
	2 x 2 x 0,75	11,7	28,2	110,5
	3 x 2 x 0,75	12,4	43,2	142,5
	4 x 2 x 0,75	13,7	57,6	178,0
	5 x 2 x 0,75	15,3	72,0	220,5
	6 x 2 x 0,75	16,7	86,4	257,5
	7 x 2 x 0,75	16,7	100,8	286,5
	8 x 2 x 0,75	17,8	115,2	321,5
	10 x 2 x 0,75	20,7	144,0	411,5
	12 x 2 x 0,75	21,7	172,8	476,0
	16 x 2 x 0,75	25,0	230,4	632,5
	20 x 2 x 0,75	27,6	288,0	767,0
	2 x 2 x 1,0	12,1	38,4	123,0
	3 x 2 x 1,0	12,8	57,6	161,0
	4 x 2 x 1,0	14,1	76,8	202,0
	5 x 2 x 1,0	15,7	96,0	250,5
	6 x 2 x 1,0	17,2	115,2	293,0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	7 x 2 x 1,0	17,2	134,4	327,0
	8 x 2 x 1,0	18,4	153,6	368,0
	10 x 2 x 1,0	21,4	192,0	470,0
	12 x 2 x 1,0	22,4	230,4	545,5
	14 x 2 x 1,0	24,4	268,8	645,5
	16 x 2 x 1,0	25,8	307,2	725,0
	20 x 2 x 1,0	28,5	384,0	882,0
	2 x 2 x 1,5	13,1	57,6	150,0
	3 x 2 x 1,5	13,9	86,4	199,5
	4 x 2 x 1,5	15,5	115,2	258,5
	5 x 2 x 1,5	17,1	144,0	313,0
	6 x 2 x 1,5	19,1	172,8	384,0
	7 x 2 x 1,5	19,1	201,6	429,0
	8 x 2 x 1,5	20,4	230,4	483,0
	10 x 2 x 1,5	23,7	288,0	613,0
	12 x 2 x 1,5	24,8	345,6	712,0
	14 x 2 x 1,5	26,5	403,2	815,5
	16 x 2 x 1,5	28,2	460,8	918,5
	18 x 2 x 1,5	29,7	518,4	1020,0
	20 x 2 x 1,5	31,1	576,0	1121,5
	2 x 2 x 2,5	14,6	96,0	206,0
	3 x 2 x 2,5	15,5	144,0	277,5
	4 x 2 x 2,5	17,2	192,0	353,5
	5 x 2 x 2,5	19,4	240,0	447,0
	6 x 2 x 2,5	21,2	288,0	525,5
	7 x 2 x 2,5	21,2	336,0	592,0
	8 x 2 x 2,5	22,6	384,0	668,5
	10 x 2 x 2,5	26,2	480,0	846,0
	12 x 2 x 2,5	27,5	576,0	989,0
	14 x 2 x 2,5	29,5	672,0	1137,0
	16 x 2 x 2,5	31,7	768,0	1311,5

Other cross-sections and pair counts available upon request.

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 and DIN VDE 0295,
- 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, coverage bigger than 80%,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOFLEKS LiYC11Y 0.6/1 kV and **TECHNOFLEKS LiYC11Yżo 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 LIYCY 0.6/1 kV

TECHNOFLEKS LIYCYżo 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	5.2	12.0	40.0
	2 x 0.5	7.8	24.1	71.5
	3 x 0.5	8.2	29.1	84.5
	4 x 0.5	8.9	40.7	107.0
	5 x 0.5	9.8	52.6	129.5
	6 x 0.5	10.5	61.5	148.5
	7 x 0.5	10.5	66.3	160.0
	8 x 0.5	11.9	75.2	182.5
	10 x 0.5	13.3	89.0	221.0
	12 x 0.5	13.6	99.3	246.5
	16 x 0.5	15.0	123.8	305.0
	19 x 0.5	16.0	164.1	370.0
	25 x 0.5	19.4	222.5	501.0
	27 x 0.5	19.5	232.2	524.5
	37 x 0.5	21.7	293.6	665.0
	1 x 0.75	5.5	15.7	45.5
	2 x 0.75	8.3	29.5	81.0
	3 x 0.75	8.8	43.1	105.0
	4 x 0.75	9.6	57.5	131.0
	5 x 0.75	10.5	68.8	154.0
	6 x 0.75	11.3	76.8	174.0
	7 x 0.75	11.3	84.1	188.5
	8 x 0.75	13.0	98.8	224.5
	10 x 0.75	14.3	117.4	265.0
	12 x 0.75	14.7	132.7	297.5
	16 x 0.75	16.5	181.5	386.0
	19 x 0.75	17.3	211.5	443.0
	27 x 0.75	21.1	309.4	638.5
	1 x 1.0	5.6	18.1	49.5
	2 x 1.0	8.6	40.7	94.5
	3 x 1.0	9.1	50.7	115.0
	4 x 1.0	9.9	67.2	143.5

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	5 x 1.0	10.7	81.0	169.5
	6 x 1.0	11.6	94.8	195.5
	7 x 1.0	11.6	104.5	213.0
	8 x 1.0	13.4	118.3	248.5
	10 x 1.0	14.7	142.5	296.0
	12 x 1.0	15.3	181.5	354.0
	16 x 1.0	16.9	227.7	441.0
	19 x 1.0	18.2	259.6	517.0
	25 x 1.0	21.6	356.5	683.0
	27 x 1.0	21.7	377.6	721.0
	1 x 1.5	5.9	23.2	57.0
	2 x 1.5	9.2	50.5	110.0
	3 x 1.5	9.8	71.1	142.5
	4 x 1.5	10.6	89.4	174.0
	5 x 1.5	11.5	107.7	206.0
	6 x 1.5	12.7	123.0	241.0
	7 x 1.5	12.7	137.2	264.5
	8 x 1.5	14.4	158.5	304.5
	10 x 1.5	16.1	208.6	382.0
	12 x 1.5	16.6	243.0	437.0
	16 x 1.5	18.9	329.2	586.5
	19 x 1.5	19.9	374.1	665.0
	1 x 2.5	6.3	34.6	72.0
	2 x 2.5	10.1	76.1	143.0
	3 x 2.5	10.6	103.7	184.0
	4 x 2.5	11.6	131.6	227.0
	5 x 2.5	12.8	159.4	276.5
	6 x 2.5	13.9	187.3	321.0
	7 x 2.5	13.9	211.1	355.5
	8 x 2.5	16.1	256.4	423.5
	10 x 2.5	18.1	312.0	525.0

Other cross-sections and conductor counts available upon request.

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 and DIN VDE 0295,
- 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, coverage bigger than 80%,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOFLEKS LiYC11Y-Nr 0.6/1 kV and **TECHNOFLEKS LiYC11Yżo-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 LiYCY-Nr 0.6/1 kV

TECHNOFLEKS LiYCYżo-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	100 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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	1 x 0.5	5.2	12.0	40.0
	2 x 0.5	7.8	24.1	71.5
	3 x 0.5	8.2	29.1	84.5
	4 x 0.5	8.9	40.7	107.0
	5 x 0.5	9.8	52.6	129.5
	6 x 0.5	10.5	61.5	148.5
	7 x 0.5	10.5	66.3	160.0
	8 x 0.5	11.9	75.2	182.5
	10 x 0.5	13.3	89.0	221.0
	12 x 0.5	13.6	99.3	246.5
	19 x 0.5	16.0	164.1	370.0
	24 x 0.5	19.1	217.6	488.0
	25 x 0.5	19.4	222.5	501.0
	27 x 0.5	19.5	232.2	524.5
	37 x 0.5	21.7	293.6	665.0
	1 x 0.75	5.5	15.7	45.5
	2 x 0.75	8.3	29.5	81.0
	3 x 0.75	8.8	43.1	105.0
	4 x 0.75	9.6	57.5	131.0
	5 x 0.75	10.5	68.8	154.0
	6 x 0.75	11.3	76.8	174.0
	7 x 0.75	11.3	84.1	188.5
	8 x 0.75	13.0	98.8	224.5
	10 x 0.75	14.3	117.4	265.0
	12 x 0.75	14.7	132.7	297.5
	19 x 0.75	17.3	211.5	443.0
	24 x 0.75	20.7	287.4	591.5
	25 x 0.75	21.0	294.7	608.0
	27 x 0.75	21.1	309.4	638.5
	1 x 1.0	5.6	18.1	49.5
	2 x 1.0	8.6	40.7	94.5
	3 x 1.0	9.1	50.7	115.0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 1.0	9.9	67.2	143.5
	5 x 1.0	10.7	81.0	169.5
	6 x 1.0	11.6	94.8	195.5
	7 x 1.0	11.6	104.5	213.0
	8 x 1.0	13.4	118.3	248.5
	10 x 1.0	14.7	142.5	296.0
	12 x 1.0	15.3	181.5	354.0
	19 x 1.0	18.2	259.6	517.0
	24 x 1.0	21.3	346.0	663.0
	25 x 1.0	21.6	356.5	683.0
	27 x 1.0	21.7	377.6	721.0
	1 x 1.5	5.9	23.2	57.0
	2 x 1.5	9.2	50.5	110.0
	3 x 1.5	9.8	71.1	142.5
	4 x 1.5	10.6	89.4	174.0
	5 x 1.5	11.5	107.7	206.0
	6 x 1.5	12.7	123.0	241.0
	7 x 1.5	12.7	137.2	264.5
	8 x 1.5	14.4	158.5	304.5
	10 x 1.5	16.1	208.6	382.0
	12 x 1.5	16.6	243.0	437.0
	16 x 1.5	18.9	329.2	586.5
	1 x 2.5	6.3	34.6	72.0
	2 x 2.5	10.1	76.1	143.0
	3 x 2.5	10.6	103.7	184.0
	4 x 2.5	11.6	131.6	227.0
	5 x 2.5	12.8	159.4	276.5
	6 x 2.5	13.9	187.3	321.0
	7 x 2.5	13.9	211.1	355.5
	8 x 2.5	16.1	256.4	423.5
	10 x 2.5	18.1	312.0	525.0

Other cross-sections and conductor counts available upon request.

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 cables.

To achieve high analogue and digital data transmission performance the cables are 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 (tin-plated on request), meeting requirements of class 5 per PN-EN 60228 and DIN VDE 0295,
- PVC insulation - identification colour code in accordance with DIN VDE 47100 in **TECHNOFLEKS LiYCY-P 0.6/1 kV** cable; black and brown insulation and white pair numbers printed on it for identification in **TECHNOFLEKS LiYCY-P-Nr 0.6/1 kV** cable,
- insulated conductors twisted into pairs,
- pairs laid-up in layers,
- cable core wrapped in polyester tape,
- tinned copper wire braid shield, coverage bigger than 80%,
- 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

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 LiYCY-P 0.6/1 kV

TECHNOFLEKS LiYCY-P-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	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 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0,5	11,5	56,8	134,5
	3 x 2 x 0,5	12,2	70,0	163,0
	4 x 2 x 0,5	13,3	82,9	194,0
	5 x 2 x 0,5	14,8	98,0	235,0
	6 x 2 x 0,5	16,3	131,5	287,5
	7 x 2 x 0,5	16,3	141,1	309,5
	8 x 2 x 0,5	17,3	155,8	342,0
	10 x 2 x 0,5	20,2	210,4	452,0
	12 x 2 x 0,5	21,1	237,8	509,5
	14 x 2 x 0,5	22,4	250,9	570,5
	16 x 2 x 0,5	24,1	292,6	653,0
	18 x 2 x 0,5	25,3	321,1	715,0
	2 x 2 x 0,75	12,4	69,7	155,0
	3 x 2 x 0,75	13,1	87,4	191,0
	4 x 2 x 0,75	14,6	106,5	237,0
	5 x 2 x 0,75	16,2	145,3	297,5
	6 x 2 x 0,75	17,6	167,8	342,0
	7 x 2 x 0,75	17,6	182,2	370,5
	8 x 2 x 0,75	19,1	202,2	428,5
	10 x 2 x 0,75	21,8	271,2	541,1
	12 x 2 x 0,75	23,2	305,9	632,5
	14 x 2 x 0,75	24,7	345,9	711,5
	2 x 2 x 1,0	12,8	80,7	169,0
	3 x 2 x 1,0	13,5	103,4	210,5

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	4 x 2 x 1,0	15,0	127,6	263,0
	5 x 2 x 1,0	16,6	171,9	330,0
	6 x 2 x 1,0	18,1	198,7	379,5
	7 x 2 x 1,0	18,1	217,9	413,5
	8 x 2 x 1,0	19,9	266,3	501,0
	10 x 2 x 1,0	22,5	322,5	603,5
	12 x 2 x 1,0	23,9	367,8	706,5
	14 x 2 x 1,0	25,5	417,1	797,5
	2 x 2 x 1,5	13,8	104,2	200,5
	3 x 2 x 1,5	14,8	136,4	260,0
	4 x 2 x 1,5	16,4	189,7	337,0
	5 x 2 x 1,5	18,0	226,8	399,0
	6 x 2 x 1,5	20,2	288,2	503,5
	7 x 2 x 1,5	20,2	317,0	548,5
	8 x 2 x 1,5	21,5	353,8	609,5
	10 x 2 x 1,5	24,8	432,3	761,5
	2 x 2 x 2,5	15,3	148,2	262,5
	3 x 2 x 2,5	16,4	222,5	360,0
	4 x 2 x 2,5	18,1	275,5	440,5
	5 x 2 x 2,5	20,5	356,4	568,0
	6 x 2 x 2,5	22,3	417,3	658,5
	7 x 2 x 2,5	22,3	465,3	725,0
	8 x 2 x 2,5	24,1	523,0	832,0

Other cross-sections and pair counts available upon request.

TECHNOFLEKS LiYwYw 105°C 0.6/1 kV
TECHNOFLEKS LiYwYwżo 105°C 0.6/1 kV

CONTROL AND POWER FLEXIBLE CABLES**APPLICATIONS**

TECHNOFLEKS LiYwYw 105°C 0.6/1 kV and **TECHNOFLEKS LiYwYwżo 105°C 0.6/1 kV** are flexible cables designed for dry and wet 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 can be applied at elevated 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 fixed and movable indoor 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 and DIN VDE 0295,
- heat resistant PVC insulation - identification colour code in accordance with Technokabel's 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,
- heat resistant PVC cable sheath, grey RAL 7001, other colours also available.

TECHNOFLEKS LiYwYw 105°C 0.6/1 kV
TECHNOFLEKS LiYwYwżo 105°C 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installations	from -30 to +105°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	from -5 to +90°C
Conductor temperature limit		Minimum bending radius	7.5 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0245, DIN VDE 0250, DIN VDE 0281

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 1.5	8.6	29.0	109.5		4 x 4.0	13.3	153.6	330.0
	3 x 1.5	9.1	43.5	133.0		5 x 4.0	14.8	192.0	401.5
	4 x 1.5	9.9	58.0	162.0					
	5 x 1.5	10.8	72.5	192.0		2 x 6.0	12.6	115.2	275.5
						3 x 6.0	13.4	172.8	351.0
	2 x 2.5	9.4	47.4	141.0		4 x 6.0	14.9	230.4	443.5
	3 x 2.5	9.9	71.1	175.0		5 x 6.0	16.4	288.0	533.0
	4 x 2.5	10.9	94.8	215.0					
	5 x 2.5	11.9	118.5	256.5		2 x 10.0	14.8	192.0	407.0
						3 x 10.0	15.7	288.0	525.5
	2 x 4.0	11.4	76.8	212.5		4 x 10.0	17.3	384.0	658.5
	3 x 4.0	12.1	115.2	266.5		5 x 10.0	19.5	480.0	812.5

Other cross-sections and conductor counts are available upon request.

TECHNOFLEKS 2YSLCY-J
TECHNOFLEKS 2YSLCYK-J**MOTOR SUPPLY CABLES****APPLICATIONS**

TECHNOFLEKS 2YSLCY-J and **TECHNOFLEKS 2YSLCYK-J** 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.

TECHNOFLEKS 2YSLCY-J cable is suitable for indoor and **TECHNOFLEKS 2YSLCYK-J** cable 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,
- cable core wrapped in a polyester tape,
- collective shield, incorporating an aluminium-polyester tape under a tinned copper wire braid shield of coverage bigger than 80%,
- PVC cable sheath of **TECHNOFLEKS 2YSLCY-J** cable, transparent or grey RAL 7001, other colours also available,
- PVC cable sheath of **TECHNOFLEKS 2YSLCYK-J** cable, black RAL 9005, other colours also available.

AVAILABLE UPON REQUEST

TECHNOFLEKS Li2YCY 0,6/1 kV and **TECHNOFLEKS Li2YCYK 0,6/1 kV** – cables shielded with optimal braid of coverage bigger than 80% and efficiency of 60dB, applied for connections between motors and new generation converters and inverters (of smaller level of electromagnetic interferences).

TECHNOFLEKS 2YSLCY-J
TECHNOFLEKS 2YSLCYK-J

CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4.0	6.0
DC conductor resistance at 20°C, maximum	Ω/km	13.3	7.98	4.95	3.30
Capacitance between conductors at 1 kHz, appr.	nF/km	70	80	90	100

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	2.5 kV rms	for fixed installations	from -30 to +70°C
Insulation resistance, minimum	200 MΩ·km	for movable installations	from -5 to +70°C
Shielding efficiency, approximate	60 dB	Minimum bending radius	15 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	DIN VDE 0250

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
2YSLCY-J	4 x 1.5	10.4	98	170
2YSLCY-J	4 x 2.5	12.3	152	244
2YSLCY-J	4 x 4.0	14.5	254	377
2YSLCY-J	4 x 6.0	16.8	360	519

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
2YSLCYK-J	4 x 1.5	10.4	98	170
2YSLCYK-J	4 x 2.5	12.3	152	244
2YSLCYK-J	4 x 4.0	14.5	254	377
2YSLCYK-J	4 x 6.0	16.8	360	519

Other cross-sections are available upon request.

TECHNOKONTROL YKSLY 0.6/1 kV
TECHNOKONTROL YKSLYżo 0.6/1 kV**CONTROL AND POWER SUPPLY FLEXIBLE CABLES**

**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, also 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.

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

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 and DIN VDE 0295,
- 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YvKSLY 0.6/1 kV and **TECHNOKONTROL YvKSLYżo 0.6/1 kV** – cables with enhanced black PVC sheath, suitable for outdoor installation and direct burial.

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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLY 0.6/1 kV

TECHNOKONTROL YKSLYżo 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	26.0	19.5	13.3	7.98

Operating voltage U _o /U	0.6/1 kV	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 0,75	7,9	14,4	62,7		37 x 1,0	23,6	355,2	794,3
	3 x 0,75	8,3	21,6	79,4		40 x 1,0	23,6	384,0	846,0
	4 x 0,75	9,0	28,8	97,2		42 x 1,0	26,2	403,2	886,8
	5 x 0,75	9,9	36,0	115,9					
	6 x 0,75	10,7	43,2	132,4		2 x 1,5	8,7	28,8	83,6
	7 x 0,75	10,7	50,4	148,8		3 x 1,5	9,2	43,2	108,8
	8 x 0,75	12,2	57,6	163,3		4 x 1,5	10,0	57,6	135,8
	10 x 0,75	13,7	72,0	211,9		5 x 1,5	10,9	72,0	163,2
	12 x 0,75	14,1	86,4	243,0		6 x 1,5	11,9	86,4	188,5
	14 x 0,75	14,8	100,8	275,8		7 x 1,5	11,9	100,8	213,8
	16 x 0,75	15,7	115,2	309,1		8 x 1,5	13,6	115,2	236,7
	20 x 0,75	16,5	144,0	369,5		10 x 1,5	15,3	144,0	304,8
	21 x 0,75	16,5	151,2	386,0		12 x 1,5	15,8	172,8	353,1
	25 x 0,75	19,7	180,0	475,4		14 x 1,5	16,6	201,6	403,3
	32 x 0,75	20,8	230,4	586,8		16 x 1,5	17,9	230,4	469,3
	34 x 0,75	21,7	244,8	618,6		20 x 1,5	18,9	288,0	564,5
	37 x 0,75	22,5	266,4	666,3		21 x 1,5	18,9	302,4	589,8
	40 x 0,75	22,5	288,0	709,7		25 x 1,5	22,1	360,0	701,3
	42 x 0,75	25,7	302,4	741,8		32 x 1,5	23,8	460,8	885,9
						34 x 1,5	24,7	489,6	938,7
						37 x 1,5	25,7	532,8	1017,8
	2 x 1,0	8,1	19,2	69,2					
	3 x 1,0	8,5	28,8	88,8		2 x 2,5	9,5	48,0	109,3
	4 x 1,0	9,3	38,4	109,5		3 x 2,5	10,0	72,0	146,0
	5 x 1,0	10,1	48,0	131,2		4 x 2,5	10,9	96,0	184,1
	6 x 1,0	11,0	57,6	150,5		5 x 2,5	12,0	120,0	223,4
	7 x 1,0	11,0	67,2	169,8		6 x 2,5	13,3	144,0	262,8
	8 x 1,0	12,7	76,8	187,0		7 x 2,5	13,3	168,0	302,2
	10 x 1,0	14,1	96,0	241,9		8 x 2,5	15,3	192,0	336,0
	12 x 1,0	14,5	115,2	278,6		10 x 2,5	16,9	240,0	422,9
	14 x 1,0	15,3	134,4	317,2		12 x 2,5	17,8	288,0	508,6
	16 x 1,0	16,1	153,6	356,2		14 x 2,5	18,7	336,0	582,0
	20 x 1,0	17,0	192,0	427,9		16 x 2,5	19,8	384,0	656,2
	21 x 1,0	17,0	201,6	447,2		20 x 2,5	20,9	480,0	792,3
	25 x 1,0	20,3	240,0	549,1		21 x 2,5	20,9	504,0	832,1
	32 x 1,0	21,5	307,2	692,1					

Other cross-sections and conductor counts available on request.

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, also 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.

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

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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in **TECHNOKONTROL YKSLYżo-Nr 0.6/1 kV** cable
- 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 PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YvKSLY-Nr 0.6/1 kV and **TECHNOKONTROL YvKSLYżo-Nr 0.6/1 kV** – cables with enhanced black PVC sheath, suitable for outdoor installation and direct burial.

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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLY-Nr 0.6/1 kV TECHNOKONTROL YKSLYżo-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	26.0	19.5	13.3	7.98

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,75	7,9	14,4	62,7
	3 x 0,75	8,3	21,6	79,4
	4 x 0,75	9,0	28,8	97,2
	5 x 0,75	9,9	36,0	115,9
	6 x 0,75	10,7	43,2	132,4
	7 x 0,75	10,7	50,4	148,8
	8 x 0,75	12,2	57,6	163,3
	10 x 0,75	13,7	72,0	211,9
	12 x 0,75	14,1	86,4	243,0
	14 x 0,75	14,8	100,8	275,8
	16 x 0,75	15,7	115,2	309,1
	20 x 0,75	16,5	144,0	369,5
	21 x 0,75	16,5	151,2	386,0
	25 x 0,75	19,7	180,0	475,4
	32 x 0,75	20,8	230,4	586,8
	37 x 0,75	22,5	266,4	666,3
	40 x 0,75	22,5	288,0	709,7
	42 x 0,75	25,7	302,4	741,8
	2 x 1,0	8,1	19,2	69,2
	3 x 1,0	8,5	28,8	88,8
	4 x 1,0	9,3	38,4	109,5
	5 x 1,0	10,1	48,0	131,2
	6 x 1,0	11,0	57,6	150,5
	7 x 1,0	11,0	67,2	169,8
	8 x 1,0	12,7	76,8	187,0
	10 x 1,0	14,1	96,0	241,9
	12 x 1,0	14,5	115,2	278,6
	14 x 1,0	15,3	134,4	317,2
	16 x 1,0	16,1	153,6	356,2
	20 x 1,0	17,0	192,0	427,9
	21 x 1,0	17,0	201,6	447,2
	25 x 1,0	20,3	240,0	549,1
	32 x 1,0	21,5	307,2	692,1

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	37 x 1,0	23,6	355,2	794,3
	40 x 1,0	23,6	384,0	846,0
	2 x 1,5	8,7	28,8	83,6
	3 x 1,5	9,2	43,2	108,8
	4 x 1,5	10,0	57,6	135,8
	5 x 1,5	10,9	72,0	163,2
	6 x 1,5	11,9	86,4	188,5
	7 x 1,5	11,9	100,8	213,8
	8 x 1,5	13,6	115,2	236,7
	10 x 1,5	15,3	144,0	304,8
	12 x 1,5	15,8	172,8	353,1
	14 x 1,5	16,6	201,6	403,3
	16 x 1,5	17,9	230,4	469,3
	20 x 1,5	18,9	288,0	564,5
	21 x 1,5	18,9	302,4	589,8
	25 x 1,5	22,1	360,0	701,3
	32 x 1,5	23,8	460,8	885,9
	37 x 1,5	25,7	532,8	1017,8
	2 x 2,5	9,5	48,0	109,3
	3 x 2,5	10,0	72,0	146,0
	4 x 2,5	10,9	96,0	184,1
	5 x 2,5	12,0	120,0	223,4
	6 x 2,5	13,3	144,0	262,8
	7 x 2,5	13,3	168,0	302,2
	8 x 2,5	15,3	192,0	336,0
	10 x 2,5	16,9	240,0	422,9
	12 x 2,5	17,8	288,0	508,6
	14 x 2,5	18,7	336,0	582,0
	16 x 2,5	19,8	384,0	656,2
	20 x 2,5	20,9	480,0	792,3
	21 x 2,5	20,9	504,0	832,1
	25 x 2,5	24,9	600,0	1011,1

Other cross-sections and conductor counts available on request.

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 intended for control, protection and monitoring systems or power supply, all in power engineering.

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

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

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

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 and DIN VDE 0295,
- 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,
- cable core wrapped in polyester tape,
- black PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YvKSLY-P 0.6/1 kV and **TECHNOKONTROL YvKSLY-P-Nr 0.6/1 kV** – cables with enhanced black PVC sheath, suitable for outdoor installation and direct burial.

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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLY-P 0.6/1 kV

TECHNOKONTROL YKSLY-P-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-17

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.3.281	2 x 2 x 0,5	10,9	19,2	96,5
7.3.282	3 x 2 x 0,5	11,6	28,8	121,5
7.3.283	4 x 2 x 0,5	12,7	38,4	150,0
7.3.284	5 x 2 x 0,5	14,0	48,0	178,5
7.3.285	6 x 2 x 0,5	15,5	57,6	214,5
7.3.286	7 x 2 x 0,5	15,5	67,2	236,5
7.3.287	8 x 2 x 0,5	16,5	76,8	264,5
7.3.288	10 x 2 x 0,5	19,2	96,0	339,9
7.3.289	12 x 2 x 0,5	20,1	115,2	389,5
7.3.290	14 x 2 x 0,5	21,4	134,4	443,0
7.3.291	16 x 2 x 0,5	22,7	153,6	495,5
7.3.292	18 x 2 x 0,5	24,3	172,8	570,0
7.3.293	20 x 2 x 0,5	25,5	192,0	623,5
7.3.294	24 x 2 x 0,5	27,6	230,4	728,0
7.3.300	2 x 2 x 0,75	11,8	28,8	114,0
7.3.301	3 x 2 x 0,75	12,5	43,2	147,0
7.3.302	4 x 2 x 0,75	13,8	57,6	182,0
7.3.303	5 x 2 x 0,75	15,4	72,0	225,0
7.3.305	7 x 2 x 0,75	16,8	100,8	291,0
7.3.307	10 x 2 x 0,75	20,8	115,2	417,0
7.3.308	12 x 2 x 0,75	21,8	144,0	481,0
7.3.309	14 x 2 x 0,75	23,7	172,8	570,5
7.3.310	16 x 2 x 0,75	25,1	230,4	639,0
7.3.311	18 x 2 x 0,75	26,5	259,2	707,0
7.3.316	2 x 2 x 1,0	12,2	38,8	127,0
7.3.317	3 x 2 x 1,0	12,9	57,6	165,0

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.3.318	4 x 2 x 1,0	14,2	76,8	206,0
7.3.319	5 x 2 x 1,0	15,8	97,0	255,0
7.3.321	7 x 2 x 1,0	17,3	134,4	331,5
7.3.323	10 x 2 x 1,0	21,5	192,0	476,0
7.3.324	12 x 2 x 1,0	22,5	232,8	551,0
7.3.325	14 x 2 x 1,0	24,5	268,8	652,5
7.3.326	16 x 2 x 1,0	25,9	307,2	732,0
7.3.327	18 x 2 x 1,0	27,3	345,6	811,0
7.3.333	2 x 2 x 1,5	13,2	57,6	154,5
7.3.334	3 x 2 x 1,5	14,0	86,4	204,0
7.3.335	4 x 2 x 1,5	15,6	115,2	263,5
7.3.336	5 x 2 x 1,5	17,2	144,0	318,0
7.3.338	7 x 2 x 1,5	19,2	201,6	435,0
7.3.340	10 x 2 x 1,5	23,8	288,0	620,0
7.3.341	12 x 2 x 1,5	24,9	345,6	719,5
7.3.342	14 x 2 x 1,5	26,6	403,2	823,0
7.3.343	16 x 2 x 1,5	28,3	460,8	926,0
7.3.347	2 x 2 x 2,5	14,7	96,0	211,0
7.3.348	3 x 2 x 2,5	15,6	144,0	282,5
7.3.349	4 x 2 x 2,5	17,3	192,0	358,5
7.3.350	5 x 2 x 2,5	19,5	240,0	453,5
7.3.352	7 x 2 x 2,5	21,3	336,0	598,5
7.3.354	10 x 2 x 2,5	26,3	480,0	854,0
7.3.355	12 x 2 x 2,5	27,6	576,0	997,0
7.3.356	14 x 2 x 2,5	29,6	672,0	1145,0
7.3.357	16 x 2 x 2,5	31,8	768,0	1321,5

Other cross-sections and pair counts available on request.

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, also 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.

An overall electrostatic shield protects cable circuits against interference by external electric fields and prevents emission of interferences produced in the cables.

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

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 and DIN VDE 0295,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLYekw 0.6/1 kV

TECHNOKONTROL YKSLYekwżo 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	26.0	19.5	13.3	7.98

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,75	8,0	19,1	72,0
	3 x 0,75	8,4	26,3	88,5
	4 x 0,75	9,1	33,5	106,5
	5 x 0,75	10,0	40,7	125,5
	6 x 0,75	10,8	47,9	141,5
	7 x 0,75	10,8	55,1	158,0
	8 x 0,75	12,3	62,3	172,5
	10 x 0,75	13,8	76,7	221,0
	12 x 0,75	14,2	91,1	252,5
	14 x 0,75	14,9	105,5	285,0
	16 x 0,75	15,8	119,9	318,3
	20 x 0,75	16,6	148,7	378,7
	21 x 0,75	16,6	155,9	395,0
	25 x 0,75	19,8	184,7	484,5
	32 x 0,75	20,9	235,1	596,0
	37 x 0,75	22,6	271,1	675,5
	40 x 0,75	22,6	292,7	719,0
	42 x 0,75	25,8	307,1	751,0
	2 x 1,0	8,2	23,9	81,0
	3 x 1,0	8,6	33,5	100,5
	4 x 1,0	9,4	43,1	121,5
	5 x 1,0	10,2	52,7	143,0
	6 x 1,0	11,1	62,3	162,5
	7 x 1,0	11,1	71,9	181,5
	8 x 1,0	12,8	81,5	199,0
	10 x 1,0	14,2	100,7	254,0
	12 x 1,0	14,6	119,9	290,5
	14 x 1,0	15,4	139,1	329,0
	16 x 1,0	16,2	158,3	368,0
	20 x 1,0	17,1	196,7	440,0
	21 x 1,0	17,1	206,3	459,0
	25 x 1,0	20,4	244,7	561,0
	32 x 1,0	21,6	311,9	704,0
	37 x 1,0	23,7	359,9	806,0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	40 x 1,0	23,7	388,7	858,0
	42 x 1,0	24,8	407,9	898,5
	2 x 1,5	8,8	35,8	100,0
	3 x 1,5	9,3	50,2	125,0
	4 x 1,5	10,1	64,6	152,0
	5 x 1,5	11,0	79,0	179,4
	6 x 1,5	12,0	93,4	205,0
	7 x 1,5	12,0	107,8	230,0
	8 x 1,5	13,7	122,2	253,0
	10 x 1,5	15,4	151,0	321,0
	12 x 1,5	15,9	179,8	369,5
	14 x 1,5	16,7	208,6	419,5
	16 x 1,5	18,0	237,4	485,5
	20 x 1,5	19,0	295,0	581,0
	21 x 1,5	19,0	309,4	606,0
	25 x 1,5	22,2	367,0	717,5
	32 x 1,5	23,9	467,8	902,5
	37 x 1,5	25,8	539,8	1034,0
	40 x 1,5	25,8	583,0	1113,5
	2 x 2,5	9,6	55,0	135,0
	3 x 2,5	10,1	79,0	172,0
	4 x 2,5	11,0	103,0	210,0
	5 x 2,5	12,1	127,0	249,5
	6 x 2,5	13,4	151,0	288,5
	7 x 2,5	13,4	175,0	328,0
	8 x 2,5	15,4	199,0	362,0
	10 x 2,5	17,0	247,0	449,0
	12 x 2,5	17,9	295,0	534,5
	14 x 2,5	18,8	343,0	608,0
	16 x 2,5	19,9	391,0	682,0
	20 x 2,5	21,0	487,0	818,0
	21 x 2,5	21,0	511,0	858,0
	25 x 2,5	25,0	607,0	1037,0

Other cross-sections and conductor counts available on request.

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, also 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.

An overall electrostatic shield protects cable circuits against interference by external electric fields and prevents emission of interferences produced in the cables.

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

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 and DIN VDE 0295,
- black PVC insulation and white conductor numbers printed on it for identification - additional green-yellow protective conductor in **TECHNOKONTROL YKSLYekwżo-Nr 0.6/1 kV** cable,
- 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 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLYekw-Nr 0.6/1 kV

TECHNOKONTROL YKSLYekwżo-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	26.0	19.5	13.3	7.98

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range for fixed equipment	from - 30 to + 80°C
Voltage test	3.5 kV rms	for movable equipment	from - 5 to + 70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-15

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 0,75	8,0	19,1	72,0
	3 x 0,75	8,4	26,3	88,5
	4 x 0,75	9,1	33,5	106,5
	5 x 0,75	10,0	40,7	125,5
	6 x 0,75	10,8	47,9	141,5
	7 x 0,75	10,8	55,1	158,0
	8 x 0,75	12,3	62,3	172,5
	10 x 0,75	13,8	76,7	221,0
	12 x 0,75	14,2	91,1	252,5
	14 x 0,75	14,9	105,5	285,0
	16 x 0,75	15,8	119,9	318,3
	20 x 0,75	16,6	148,7	378,7
	21 x 0,75	16,6	155,9	395,0
	25 x 0,75	19,8	184,7	484,5
	32 x 0,75	20,9	235,1	596,0
	37 x 0,75	22,6	271,1	675,5
	40 x 0,75	22,6	292,7	719,0
	2 x 1,0	8,2	23,9	81,0
	3 x 1,0	8,6	33,5	100,5
	4 x 1,0	9,4	43,1	121,5
	5 x 1,0	10,2	52,7	143,0
	6 x 1,0	11,1	62,3	162,5
	7 x 1,0	11,1	71,9	181,5
	8 x 1,0	12,8	81,5	199,0
	10 x 1,0	14,2	100,7	254,0
	12 x 1,0	14,6	119,9	290,5
	14 x 1,0	15,4	139,1	329,0
	16 x 1,0	16,2	158,3	368,0
	20 x 1,0	17,1	196,7	440,0
	21 x 1,0	17,1	206,3	459,0
	25 x 1,0	20,4	244,7	561,0
	32 x 1,0	21,6	311,9	704,0
	37 x 1,0	23,7	359,9	806,0

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	40 x 1,0	23,7	388,7	858,0
	2 x 1,5	8,8	35,8	100,0
	3 x 1,5	9,3	50,2	125,0
	4 x 1,5	10,1	64,6	152,0
	5 x 1,5	11,0	79,0	179,4
	6 x 1,5	12,0	93,4	205,0
	7 x 1,5	12,0	107,8	230,0
	8 x 1,5	13,7	122,2	253,0
	10 x 1,5	15,4	151,0	321,0
	12 x 1,5	15,9	179,8	369,5
	14 x 1,5	16,7	208,6	419,5
	16 x 1,5	18,0	237,4	485,5
	20 x 1,5	19,0	295,0	581,0
	21 x 1,5	19,0	309,4	606,0
	25 x 1,5	22,2	367,0	717,5
	32 x 1,5	23,9	467,8	902,5
	37 x 1,5	25,8	539,8	1034,0
	40 x 1,5	25,8	583,0	1113,5
	2 x 2,5	9,6	55,0	135,0
	3 x 2,5	10,1	79,0	172,0
	4 x 2,5	11,0	103,0	210,0
	5 x 2,5	12,1	127,0	249,5
	6 x 2,5	13,4	151,0	288,5
	7 x 2,5	13,4	175,0	328,0
	8 x 2,5	15,4	199,0	362,0
	10 x 2,5	17,0	247,0	449,0
	12 x 2,5	17,9	295,0	534,5
	14 x 2,5	18,8	343,0	608,0
	16 x 2,5	19,9	391,0	682,0
	20 x 2,5	21,0	487,0	818,0
	21 x 2,5	21,0	511,0	858,0
	25 x 2,5	25,0	607,0	1037,0

Other cross-sections and conductor counts available on request.

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 intended for control, protection and monitoring systems or power supply, all in power engineering.

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

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

An overall electrostatic shield protects cable circuits against interference by external electric fields.

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

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 and DIN VDE 0295,
- 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,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire,
- black 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 60811-2-1,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

TECHNOKONTROL YKSLYekw-P 0.6/1 kV

TECHNOKONTROL YKSLYekw-P-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed equipment	from - 30 to + 80°C
Insulation resistance, minimum	100 MΩ·km	for movable equipment	from - 5 to + 70°C
Conductor temperature limit		Minimum bending radius	15 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
at short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-17

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.5.281	2 x 2 x 0,5	11,0	21,8	101,5
7.5.282	3 x 2 x 0,5	11,7	31,8	126,5
7.5.283	4 x 2 x 0,5	12,8	41,1	155,0
7.5.284	5 x 2 x 0,5	14,1	50,8	184,5
7.5.285	6 x 2 x 0,5	15,6	60,5	220,5
7.5.286	7 x 2 x 0,5	15,6	70,2	243,0
7.5.287	8 x 2 x 0,5	16,6	79,9	270,5
7.5.288	10 x 2 x 0,5	19,3	99,2	346,0
7.5.289	12 x 2 x 0,5	20,2	118,6	396,5
7.5.290	14 x 2 x 0,5	21,5	137,9	450,0
7.5.291	16 x 2 x 0,5	23,2	157,3	524,5
7.5.292	18 x 2 x 0,5	24,4	176,6	578,5
7.5.293	20 x 2 x 0,5	25,6	196,0	631,5
7.5.294	24 x 2 x 0,5	27,7	234,7	736,5
7.5.301	2 x 2 x 0,75	11,9	33,9	122,0
7.5.302	3 x 2 x 0,75	12,6	48,5	154,5
7.5.303	4 x 2 x 0,75	13,9	63,0	190,5
7.5.304	5 x 2 x 0,75	15,5	77,5	234,0
7.5.306	7 x 2 x 0,75	16,9	106,6	300,0
7.5.308	10 x 2 x 0,75	20,9	150,2	426,5
7.5.309	12 x 2 x 0,75	21,9	179,3	490,5
7.5.310	14 x 2 x 0,75	23,8	208,4	581,0
7.5.311	16 x 2 x 0,75	25,2	237,4	649,5
7.5.312	24 x 2 x 0,75	30,1	353,8	918,5
7.5.316	2 x 2 x 1,0	12,3	43,6	135,0
7.5.317	3 x 2 x 1,0	13,0	63,0	172,5

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
7.5.318	4 x 2 x 1,0	14,5	82,4	221,0
7.5.319	5 x 2 x 1,0	15,9	101,8	263,5
7.5.321	7 x 2 x 1,0	17,4	140,6	340,5
7.5.323	10 x 2 x 1,0	21,6	198,8	485,0
7.5.324	12 x 2 x 1,0	22,6	237,6	561,0
7.5.325	14 x 2 x 1,0	24,6	276,4	663,0
7.5.326	16 x 2 x 1,0	26,0	315,2	742,0
7.5.327	18 x 2 x 1,0	27,4	350,3	822,0
7.5.333	2 x 2 x 1,5	13,3	64,6	164,5
7.5.334	3 x 2 x 1,5	14,1	93,4	214,0
7.5.335	4 x 2 x 1,5	15,7	122,2	274,5
7.5.336	5 x 2 x 1,5	17,3	151,0	329,0
7.5.338	7 x 2 x 1,5	19,3	208,6	447,0
7.5.340	10 x 2 x 1,5	23,9	295,0	633,0
7.5.341	12 x 2 x 1,5	25,0	352,6	732,5
7.5.342	14 x 2 x 1,5	26,7	410,2	836,4
7.5.343	16 x 2 x 1,5	28,4	467,8	939,5
7.5.347	2 x 2 x 2,5	14,8	103,0	221,5
7.5.348	3 x 2 x 2,5	15,7	151,0	293,5
7.5.349	4 x 2 x 2,5	17,4	199,0	370,0
7.5.350	5 x 2 x 2,5	19,6	247,0	465,0
7.5.352	7 x 2 x 2,5	21,4	343,0	610,5
7.5.354	10 x 2 x 2,5	26,4	487,0	867,5
7.5.355	12 x 2 x 2,5	27,7	583,0	1010,5
7.5.356	14 x 2 x 2,5	29,7	679,0	1159,0
7.5.357	16 x 2 x 2,5	31,9	775,0	1336,0

Other cross-sections and pair counts available on request.

TECHNOKONTROL YKSLYekpekW 0.6/1 kV
TECHNOKONTROL YKSLYekpekW-Nr 0.6/1 kV

CONTROL AND POWER FLEXIBLE CABLES**APPLICATIONS**

TECHNOKONTROL YKSLYekpekW 0.6/1 kV and **TECHNOKONTROL YKSLYekpekW-Nr 0.6/1 kV** are multi-pair, 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 fixed and movable indoor 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 and DIN VDE 0295,
- PVC insulation - identification colour code according to IEC 60189-2 (compatible with PN-92/T-90321) in **TECHNOKONTROL YKSLYekpekW 0.6/1 kV** cables or black and brown PVC insulation and white pair numbers printed on it for identification in **TECHNOKONTROL YKSLYekpekW-Nr 0.6/1 kV** cable,
- insulated conductors stranded into pairs,
- pair electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded 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 stranded annealed tinned copper drain wire,
- black PVC cable sheath RAL 9005, other colours also available.

AVAILABLE UPON REQUEST

TECHNOKONTROL YKSLYekpekW-O 0.6/1 kV and **TECHNOKONTROL YKSLYekpekW-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 PN-EN 60811-2-1 standard.

TECHNOKONTROL YKSLYekpek 0.6/1 kV

TECHNOKONTROL YKSLYekpek-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	from -5 to +70°C
Conductor temperature limit		Minimum bending radius	10 x cable diameter
in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 150°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	WT-TK-17

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	11.5	26.7	118.5		2 x 2 x 1.0	12.8	53.4	157.5
	3 x 2 x 0.5	12.2	38.8	152.0		3 x 2 x 1.0	13.4	77.7	205.5
	4 x 2 x 0.5	13.4	50.9	187.5		4 x 2 x 1.0	15.1	102.0	265.0
	5 x 2 x 0.5	15.0	63.0	231.0		5 x 2 x 1.0	16.6	126.3	318.5
	6 x 2 x 0.5	16.3	75.2	268.5		8 x 2 x 1.0	19.8	199.2	485.5
	8 x 2 x 0.5	17.4	99.4	333.5		10 x 2 x 1.0	22.5	247.8	593.0
	10 x 2 x 0.5	20.2	123.7	425.5		12 x 2 x 1.0	24.0	296.4	711.5
	12 x 2 x 0.5	21.2	147.0	490.5					
	14 x 2 x 0.5	22.6	170.4	559.0		2 x 2 x 1.5	13.8	78.7	195.0
	16 x 2 x 0.5	24.4	196.5	649.5		3 x 2 x 1.5	14.8	114.4	265.0
	18 x 2 x 0.5	25.7	220.7	718.0		4 x 2 x 1.5	16.3	150.2	333.5
	24 x 2 x 0.5	29.1	293.5	921.0		5 x 2 x 1.5	18.0	185.9	402.5
						8 x 2 x 1.5	21.4	293.1	617.0
	2 x 2 x 0.75	12.4	43.6	144.5		10 x 2 x 1.5	24.8	364.6	778.5
	3 x 2 x 0.75	13.2	63.0	187.0					
	4 x 2 x 0.75	14.7	82.5	239.5		2 x 2 x 2.5	15.4	116.9	254.5
	5 x 2 x 0.75	16.2	101.9	287.0		3 x 2 x 2.5	16.3	171.7	341.5
	8 x 2 x 0.75	19.2	160.1	436.5		4 x 2 x 2.5	18.0	226.5	433.0
	10 x 2 x 0.75	20.9	198.9	525.0		5 x 2 x 2.5	20.3	281.4	545.0
	12 x 2 x 0.75	23.3	237.8	637.5		8 x 2 x 2.5	24.0	447.9	834.5
	16 x 2 x 0.75	26.4	315.4	816.0		10 x 2 x 2.5	27.4	555.6	1024.0

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLXS-Nr 0.6/1 kV
TECHNOKONTROL YKSLXSžo-Nr 0.6/1 kV**CONTROL AND POWER FLEXIBLE CABLES****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 fixed and movable indoor 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 and DIN VDE 0295,
- black cross-linked polyethylene (XLPE) insulation and white conductor numbers printed for identification,
- insulated conductors laid-up in layers in a cable core, in **YKSLXSžo-Nr 0,6/1 kV** cable a green-yellow protective conductor in the outer layer,
- cable core wrapped in a polyester tape,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXS-Nr 0,6/1 kV and **TECHNOKONTROL HKSLXSžo-Nr 0,6/1 kV** – halogen free 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.

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

TECHNOKONTROL YKSLXS-Nr 0.6/1 kV

TECHNOKONTROL YKSLXSzo-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	40	45	50	55	60

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installations	from -30 to +80°C
Insulation resistance, minimum	100 MΩ·km	for movable installations	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 and IEC 60332-1
in short-circuit	+ 250°C		

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 0.5	7.0	9.6	52.5		4 x 1.0	8.8	38.4	96.5
	3 x 0.5	7.3	14.4	58.5		5 x 1.0	9.6	48.0	117.5
	4 x 0.5	7.9	19.2	70.0		6 x 1.0	10.4	57.6	138.5
	5 x 0.5	8.6	24.0	84.0		7 x 1.0	10.4	67.2	146.5
	6 x 0.5	9.3	28.8	98.0		10 x 1.0	13.1	96.0	202.5
	7 x 0.5	9.3	33.6	102.5		12 x 1.0	13.5	115.2	232.5
	10 x 0.5	11.7	48.0	139.5		16 x 1.0	15.2	153.6	306.0
	12 x 0.5	12.0	57.6	158.5		20 x 1.0	16.5	192.0	366.0
	16 x 0.5	13.3	76.8	200.5		25 x 1.0	19.1	240.0	465.5
	20 x 0.5	14.6	96.0	244.5					
	25 x 0.5	16.5	120.0	297.5		2 x 1.5	8.3	28.8	83.0
	32 x 0.5	17.8	153.6	363.5		3 x 1.5	8.8	43.2	97.5
	34 x 0.5	18.3	163.2	384.5		4 x 1.5	9.5	57.6	120.5
	37 x 0.5	19.3	177.6	429.0		5 x 1.5	10.4	72.0	147.5
	44 x 0.5	21.6	211.2	503.0		6 x 1.5	11.3	86.4	174.5
						7 x 1.5	11.3	100.8	186.5
	2 x 0.75	7.5	14.4	62.0		10 x 1.5	14.5	144.0	266.0
	3 x 0.75	7.9	21.6	70.0		12 x 1.5	15.0	172.8	306.5
	4 x 0.75	8.6	28.8	85.0		16 x 1.5	16.6	230.4	395.0
	5 x 0.75	9.3	36.0	103.0		20 x 1.5	18.0	288.0	476.0
	6 x 0.75	10.1	43.2	121.0		25 x 1.5	20.9	360.0	604.0
	7 x 0.75	10.1	55.1	127.0					
	10 x 0.75	12.7	76.7	174.5		2 x 2.5	9.1	48.0	109.0
	12 x 0.75	13.1	91.1	199.5		3 x 2.5	9.6	72.0	132.0
	16 x 0.75	14.7	119.9	261.5		4 x 2.5	10.5	96.0	166.5
	20 x 0.75	16.0	148.7	311.5		5 x 2.5	11.5	120.0	205.5
	25 x 0.75	18.1	184.7	380.0		6 x 2.5	12.5	144.0	243.5
	32 x 0.75	19.9	235.1	486.0		7 x 2.5	12.5	168.0	264.0
	34 x 0.75	20.5	249.5	515.0		10 x 2.5	16.1	240.0	376.5
						12 x 2.5	16.6	288.0	437.5
	2 x 1.0	7.7	19.2	68.5		16 x 2.5	18.9	384.0	586.0
	3 x 1.0	8.1	28.8	79.0		20 x 2.5	20.5	480.0	709.0

Other cross-sections and conductor counts are available upon request.

TECHNOKONTROL YKSLXS-P-Nr 0.6/1 kV**CONTROL AND POWER FLEXIBLE CABLES**

**APPLICATIONS**

TECHNOKONTROL YKSLXS-P-Nr 0.6/1 kV is a multipair, overall shielded cable intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Mutual influence between signals transmitted along the cable and interferences from external sources are substantially reduced by the pair structure.

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 suitable for fixed and movable indoor 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 and DIN VDE 0295,
- cross-linked polyethylene (XLPE) insulation coloured black or brown and white pair numbers printed for identification,
- insulated conductors stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXS-P-Nr 0.6/1 kV – halogen free 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.

TECHNOKONTROL YvKSLXS-P-Nr 0.6/1 kV – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXS-P-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	0.6/1 kV	Operating temperature range for fixed installations	from -30 to +80°C
Voltage test	3.5 kV rms	for movable installations	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
Conductor temperature limit in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
in short-circuit	+ 250°C		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	10.3	19.2	82.0		8 x 2 x 1.0	17.4	153.6	315.5
	3 x 2 x 0.5	10.8	28.8	102.0		10 x 2 x 1.0	20.2	192.0	403.0
	4 x 2 x 0.5	11.9	38.4	124.5		12 x 2 x 1.0	21.1	230.4	465.0
	5 x 2 x 0.5	13.1	48.0	147.0		14 x 2 x 1.0	22.6	268.8	530.5
	6 x 2 x 0.5	14.4	57.6	176.5		16 x 2 x 1.0	24.4	307.2	617.5
	8 x 2 x 0.5	15.4	76.8	215.5		18 x 2 x 1.0	25.6	345.6	683.0
	10 x 2 x 0.5	17.5	96.0	261.0					
	12 x 2 x 0.5	18.3	115.2	299.0		2 x 2 x 1.5	12.5	57.6	136.0
	16 x 2 x 0.5	21.2	153.6	400.0		3 x 2 x 1.5	13.3	86.4	178.0
	18 x 2 x 0.5	22.3	172.8	440.5		4 x 2 x 1.5	14.8	115.2	230.0
	24 x 2 x 0.5	25.7	230.4	584.5		5 x 2 x 1.5	16.3	144.0	276.5
						6 x 2 x 1.5	17.8	172.8	323.0
	2 x 2 x 0.75	11.1	28.8	98.5		8 x 2 x 1.5	19.4	230.4	423.5
	3 x 2 x 0.75	11.8	43.2	124.5		10 x 2 x 1.5	22.1	288.0	517.5
	4 x 2 x 0.75	13.0	57.6	153.5		12 x 2 x 1.5	23.6	345.6	621.5
	5 x 2 x 0.75	14.5	72.0	189.5		16 x 2 x 1.5	26.7	460.8	797.5
	8 x 2 x 0.75	16.8	115.2	271.0					
	10 x 2 x 0.75	19.5	144.0	347.5		2 x 2 x 2.5	13.9	96.0	184.0
	12 x 2 x 0.75	20.5	172.8	399.0		3 x 2 x 2.5	14.9	144.0	253.0
	16 x 2 x 0.75	23.6	230.4	529.0		4 x 2 x 2.5	16.4	192.0	320.0
	18 x 2 x 0.75	24.8	259.2	584.0		5 x 2 x 2.5	18.1	240.0	388.0
						7 x 2 x 2.5	20.2	336.0	532.5
	2 x 2 x 1.0	11.5	38.4	110.5		10 x 2 x 2.5	25.1	480.0	759.5
	3 x 2 x 1.0	12.2	57.6	141.8		12 x 2 x 2.5	26.3	576.0	885.5
	4 x 2 x 1.0	13.4	76.8	176.5		14 x 2 x 2.5	28.1	672.0	1015.5
	5 x 2 x 1.0	14.9	96.0	218.0		16 x 2 x 2.5	29.8	768.0	1144.5

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLXSekw-Nr 0.6/1 kV
TECHNOKONTROL YKSLXSekwżo-Nr 0.6/1 kV**CONTROL AND POWER 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.

The cables are protected against interferences from external electric fields by means of an overall electrostatic shield.

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 fixed and movable indoor 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 and DIN VDE 0295,
- black cross-linked polyethylene (XLPE) insulation and white pair numbers printed for identification,
- insulated conductors laid-up in layers into a cable core, in **YKSLXSekwżo-Nr 0,6/1 kV** cable a green-yellow protective conductor in the outer layer,
- cable core wrapped in a polyester tape,
- overall electrostatic shield, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXSekw-Nr 0.6/1 kV and **TECHNOKONTROL HKSLXSekwżo-Nr 0.6/1 kV** – halogen free 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.

TECHNOKONTROL YvKSLXSekw-Nr 0.6/1 kV and **TECHNOKONTROL YvKSLXSekwżo-Nr 0.6/1 kV** – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXSekw-Nr 0.6/1 kV

TECHNOKONTROL YKSLXSekwżo-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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
Mutual capacitance at 1 kHz, approximate	nF/km	50	55	55	60	70

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range for fixed installations	from -30 to +80°C
Voltage test	3.5 kV rms	Operating temperature range for movable installations	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
Conductor temperature limit in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
Conductor temperature limit in short-circuit	+ 250°C		

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 0.5	7.1	11.9	56.5		4 x 1.0	8.9	43.1	104.0
	3 x 0.5	7.4	16.7	63.0		5 x 1.0	9.7	52.7	124.5
	4 x 0.5	8.0	21.5	74.5		6 x 1.0	10.5	62.3	145.5
	5 x 0.5	8.7	26.3	88.5		7 x 1.0	10.5	71.9	154.0
	6 x 0.5	9.4	31.1	102.5		10 x 1.0	13.2	100.7	210.0
	7 x 0.5	9.4	35.9	107.0		12 x 1.0	13.6	119.9	240.5
	10 x 0.5	11.8	50.3	145.0		16 x 1.0	15.3	158.3	314.0
	12 x 0.5	12.1	59.9	163.5		20 x 1.0	16.6	196.7	374.0
	16 x 0.5	13.4	79.1	206.5		25 x 1.0	19.2	244.7	475.0
	20 x 0.5	14.7	98.3	250.0					
	25 x 0.5	16.6	122.3	303.5		2 x 1.5	8.4	35.8	92.0
	32 x 0.5	17.9	155.9	369.5		3 x 1.5	8.9	50.2	107.0
	34 x 0.5	18.8	165.5	409.0		4 x 1.5	9.6	64.6	130.0
	37 x 0.5	19.4	179.9	435.5		5 x 1.5	10.5	79.0	157.0
	40 x 0.5	20.1	194.3	465.5		6 x 1.5	11.4	93.4	184.0
						7 x 1.5	11.4	107.8	196.5
	2 x 0.75	7.6	19.1	68.5		10 x 1.5	14.6	151.0	276.5
	3 x 0.75	8.0	26.3	77.0		12 x 1.5	15.1	179.8	317.0
	4 x 0.75	8.7	33.5	92.0		16 x 1.5	16.7	237.4	406.0
	5 x 0.75	9.4	40.7	110.0		20 x 1.5	18.1	295.0	487.0
	6 x 0.75	10.2	47.9	128.5		25 x 1.5	21.0	367.0	616.0
	7 x 0.75	10.2	55.1	134.5					
	10 x 0.75	12.8	76.7	182.5		2 x 2.5	9.2	55.0	118.5
	12 x 0.75	13.2	91.1	207.0		3 x 2.5	9.7	79.0	142.0
	16 x 0.75	14.8	119.9	269.5		4 x 2.5	10.6	103.0	176.0
	20 x 0.75	16.1	148.7	319.5		5 x 2.5	11.6	127.0	214.5
	25 x 0.75	18.2	184.7	388.5		6 x 2.5	12.6	151.0	253.5
	32 x 0.75	20.0	235.1	495.0		7 x 2.5	12.6	175.0	274.0
	34 x 0.75	20.6	249.5	524.0		10 x 2.5	16.2	247.0	387.0
						12 x 2.5	16.7	295.0	448.0
	2 x 1.0	7.8	23.9	75.0		14 x 2.5	17.6	343.0	512.0
	3 x 1.0	8.2	33.5	86.0		16 x 2.5	19.0	391.0	597.5

Other cross-sections and conductor counts are available upon request.

TECHNOKONTROL YKSLXSekw-P-Nr 0.6/1 kV**CONTROL AND POWER FLEXIBLE CABLES****APPLICATIONS**

TECHNOKONTROL YKSLXSekw-P-Nr 0.6/1 kV is a multipair overall shielded cable intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Mutual influence between signals transmitted along the cable is substantially reduced by the pair structure.

The cable is protected against interferences from external electric fields by means of an overall electrostatic shield.

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 suitable for fixed and movable indoor 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 and DIN VDE 0295,
- cross-linked polyethylene (XLPE) insulation coloured black or brown and white pair numbers printed for identification,
- insulated conductors stranded into pairs,
- pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXSekw-P-Nr 0.6/1 kV – halogen free 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.

TECHNOKONTROL YvKSLXSekw-P-Nr 0.6/1 kV – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXSekw-P-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	0.6/1 kV	Operating temperature range for fixed installations	from -30 to +80°C
Voltage test	3.5 kV rms	for movable installations	from -5 to +70°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	10 x cable diameter
Conductor-screen capacitance, approximate	200 nF/km	Cable combustibility	flame retardant
Inductance, approximate	0.7 mH/km	Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
Conductor temperature limit in work conditions	+ 90°C		
in short-circuit	+ 250°C		

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	10.4	21.5	87.0		2 x 2 x 1.0	11.6	43.1	118.0
	3 x 2 x 0.5	10.9	31.1	107.0		3 x 2 x 1.0	12.3	62.3	149.5
	4 x 2 x 0.5	12.0	40.7	129.5		4 x 2 x 1.0	13.5	81.5	184.5
	5 x 2 x 0.5	13.2	50.3	152.5		5 x 2 x 1.0	15.0	100.7	226.0
	6 x 2 x 0.5	14.5	59.9	182.0		8 x 2 x 1.0	17.5	158.3	324.0
	8 x 2 x 0.5	15.5	79.1	221.5		10 x 2 x 1.0	20.3	196.7	412.0
	10 x 2 x 0.5	17.6	98.3	267.0		12 x 2 x 1.0	21.2	235.1	474.5
	12 x 2 x 0.5	18.8	117.5	323.0					
	16 x 2 x 0.5	21.3	155.9	406.5		2 x 2 x 1.5	12.6	64.6	146.0
	18 x 2 x 0.5	22.4	175.1	448.0		3 x 2 x 1.5	13.4	93.4	188.5
	24 x 2 x 0.5	25.8	232.7	593.0		4 x 2 x 1.5	14.9	122.2	240.0
						5 x 2 x 1.5	16.4	151.0	287.0
	2 x 2 x 0.75	11.2	33.5	106.0		8 x 2 x 1.5	19.5	237.4	435.0
	3 x 2 x 0.75	11.9	47.9	132.0		10 x 2 x 1.5	22.2	295.0	529.0
	4 x 2 x 0.75	13.1	62.3	161.0					
	5 x 2 x 0.75	14.6	76.7	197.5		2 x 2 x 2.5	14.0	103.0	194.0
	8 x 2 x 0.75	16.9	119.9	279.5		3 x 2 x 2.5	15.0	151.0	263.5
	10 x 2 x 0.75	19.6	148.7	356.5		4 x 2 x 2.5	16.5	199.0	331.0
	12 x 2 x 0.75	20.6	177.5	408.5		5 x 2 x 2.5	18.2	247.0	399.0
	16 x 2 x 0.75	23.7	235.1	539.0		7 x 2 x 2.5	20.3	343.0	544.0
						10 x 2 x 2.5	25.2	487.0	772.5

Other cross-sections and pair counts are available upon request.

TECHNOKONTROL YKSLXSekpekwn-Nr 0.6/1 kV**CONTROL AND POWER FLEXIBLE CABLES****APPLICATIONS**

TECHNOKONTROL YKSLXSekpekwn-Nr 0.6/1 kV is a multipair, pair and overall shielded cable intended for control, protection and monitoring systems, also for power supply, all in power engineering.

Mutual influence between signals transmitted along the cable is substantially reduced by individually shielded pairs.

The cable is protected against interferences from external electric fields by means of an overall electrostatic shield.

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 suitable for fixed and movable indoor 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 and DIN VDE 0295,
- cross-linked polyethylene (XLPE) insulation coloured black or brown and white pair numbers printed for identification,
- insulated conductors stranded into pairs,
- electrostatic shield over each pair, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- shielded pairs laid-up in layers into a cable core,
- cable core wrapped in a polyester tape,
- overall electrostatic shield, incorporating a plastic laminated metal foil and a stranded annealed tinned copper drain wire,
- PVC cable sheath, black RAL 9005, 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 PN-EN 60811-2-1 standard.

TECHNOKONTROL HKSLXSekpekwn-Nr 0.6/1 kV – halogen free 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.

TECHNOKONTROL YvKSLXSekpekwn-Nr 0.6/1 kV – cables with UV radiation resistant and PVC enhanced sheath, suitable for outdoor installations and direct earth burial.

TECHNOKONTROL YKSLXSekpek-Nr 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	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 U ₀ /U	0.6/1 kV	Operating temperature range for fixed installations	from -30 to +80°C
Voltage test	3.5 kV rms	for movable installations	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
Conductor temperature limit in work conditions	+ 90°C	Combustibility tests	PN-EN 60332-1-2 and IEC 60332-1
in short-circuit	+ 250°C		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 2 x 0.5	10.9	26.7	101.0		2 x 2 x 1.0	12.1	53.4	137.5
	3 x 2 x 0.5	11.5	38.8	127.5		3 x 2 x 1.0	12.7	77.7	177.6
	4 x 2 x 0.5	12.6	50.9	157.0		4 x 2 x 1.0	14.1	102.0	222.4
	5 x 2 x 0.5	13.9	63.0	187.0		5 x 2 x 1.0	15.7	126.3	274.2
	6 x 2 x 0.5	15.3	75.2	224.0		8 x 2 x 1.0	18.3	199.2	401.1
	8 x 2 x 0.5	16.3	99.4	276.0		10 x 2 x 1.0	21.2	247.8	508.6
	10 x 2 x 0.5	18.9	123.7	352.0		12 x 2 x 1.0	22.3	296.4	590.3
	12 x 2 x 0.5	19.8	147.9	405.0					
	16 x 2 x 0.5	22.4	196.5	516.3		2 x 2 x 1.5	13.1	78.7	170.5
	18 x 2 x 0.5	24.0	220.7	592.0		3 x 2 x 1.5	13.8	114.4	224.5
	24 x 2 x 0.5	27.2	293.5	757.0		4 x 2 x 1.5	15.5	150.2	289.5
						5 x 2 x 1.5	17.1	185.9	348.5
	2 x 2 x 0.75	11.8	43.6	125.0		8 x 2 x 1.5	20.3	293.1	533.5
	3 x 2 x 0.75	12.4	63.0	160.5		10 x 2 x 1.5	23.6	364.6	672.5
	4 x 2 x 0.75	13.7	82.5	199.0					
	5 x 2 x 0.75	15.3	101.9	245.0		2 x 2 x 2.5	14.0	116.9	219.0
	8 x 2 x 0.75	17.7	160.1	355.0		3 x 2 x 2.5	15.0	171.7	302.0
	10 x 2 x 0.75	19.6	198.9	444.5		4 x 2 x 2.5	16.5	226.5	382.0
	12 x 2 x 0.75	21.6	237.8	521.0		5 x 2 x 2.5	18.2	281.4	465.0
	16 x 2 x 0.75	24.9	315.4	690.0		7 x 2 x 2.5	20.3	445.9	636.0
						10 x 2 x 2.5	25.2	555.6	903.5

Other cross-sections and pair counts are available upon request.

E – Power cables for 0.6/1 kV

YKXS 0.6/1 kV, YKXSžo 0.6/1 kV

POWER CABLES**APPLICATIONS**

YKXS 0.6/1 kV and **YKXSžo 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 (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
 - 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-93/E-90400 standard,
- insulated conductors laid-up in a cable core; green-yellow protective conductor in **YKXSžo 0.6/1 kV** cable,
- cable core wrapped in a polyester tape,
- black PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

YkXS-O 0.6/1 kV and **YkXSžo-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 PN-EN 60811-2-1 standard,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YnKXS 0.6/1 kV and **YnKXSžo 0.6/1 kV** – cables of reduced combustibility, sheathed with PVC of oxygen index bigger than 29%.

YKwXS 0.6/1 kV and **YKwXSžo 0.6/1 kV** – cables with inner sheath extruded directly on cable core, recommended for direct earth burial.

XnKXS 0.6/1 kV and **XnKXSžo 0.6/1 kV** – halogen free cables applied in locations where higher safety level in case of fire is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

YKXS 0.6/1 kV, YKXSzo 0.6/1 kV
CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, max.	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387

Operating voltage U ₀ /U	0.6/1 kV	Temperature range during operation	from -30 to +70°C
Voltage test	4.0 kV rms	Temperature range during installation	from -5 to +50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius single conductor cables	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Minimum bending radius multi conductor cables	12 x cable diameter
Conductor temperature limit in short-circuit	+ 250°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	PN-HD 603 S1 and IEC 60502-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	1 x 1.5 RE	5.6	14.4	47.0		2 x 10 RE	13.7	192.0	364.0
	2 x 1.5 RE	9.3	28.8	117.3		3 x 10 RE	14.5	288.0	463.3
	3 x 1.5 RE	9.7	43.2	134.9		4 x 10 RE	15.8	384.0	582.1
	4 x 1.5 RE	10.4	57.6	160.5		5 x 10 RE	17.2	480.0	698.5
	5 x 1.5 RE	11.2	72.0	185.6					
						1 x 16 RE	8.8	153.6	211.0
	1 x 2.5 RE	6.0	24.0	59.0		2 x 16 RE	15.7	307.2	529.4
	2 x 2.5 RE	10.1	48.0	149.5		3 x 16 RE	16.6	460.8	688.2
	3 x 2.5 RE	10.5	72.0	176.8		4 x 16 RE	18.2	614.4	873.2
	4 x 2.5 RE	11.4	96.0	213.8		5 x 16 RE	19.9	768.0	1054.4
	5 x 2.5 RE	12.3	120.0	250.0					
						1 x 25 RM	10.6	240.0	314.0
	1 x 4.0 RE	6.5	38.4	77.0		2 x 25 RM	19.3	480.0	798.8
	2 x 4.0 RE	11.0	76.8	195.2		3 x 25 RM	20.5	720.0	1043.3
	3 x 4.0 RE	11.6	115.2	237.0		4 x 25 RM	22.5	960.0	1328.7
	4 x 4.0 RE	12.5	153.6	290.7		5 x 25 RM	24.8	1200.0	1607.2
	5 x 4.0 RE	13.6	192.0	343.4					
						1 x 35 RM	11.6	336.0	412.0
	1 x 6.0 RE	7.0	57.6	99.0		4 x 35 SM	23.8	1344.0	1627.0
	2 x 6.0 RE	12.0	115.2	251.1		5 x 35 RM	27.5	1680.0	2140.0
	3 x 6.0 RE	12.6	172.8	311.4					
	4 x 6.0 RE	13.7	230.4	386.2		1 x 50 RM	13.1	480.0	563.0
	5 x 6.0 RE	14.9	288.0	459.6		4 x 50 SM	27.6	1920.0	2257.0
						5 x 50 RM	31.9	2400.0	2440.0
	1 x 10 RE	7.8	96.0	145.0					

Other cross-sections and conductor counts are available upon request.

YKXSektmy 0.6/1 kV, YKXSektmyżo 0.6/1 kV

POWER CABLES



APPLICATIONS

YKXSektmy 0.6/1 kV and **YKXSektmyżo 0.6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering.

Copper tape overall shield offers protection against external electromagnetic interferences.

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 (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
 - 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-93/E-90400 standard,
- insulated conductors laid-up in a cable core; green-yellow protective conductor in **YKXSektmyżo 0.6/1 kV** cable,
- cable core wrapped in a polyester tape,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

AVAILABLE UPON REQUEST

YKXSektmy-O 0.6/1 kV and **YKXSektmyżo-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 PN-EN 60811-2-1 standard,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YnKXSektmyn 0.6/1 kV and **YnKXSektmynżo 0.6/1 kV** – cables of reduced combustibility, sheathed with PVC of oxygen index bigger than 29%.

YKwXSektmy 0.6/1 kV and **YKwXSektmyżo 0.6/1 kV** – cables with inner sheath extruded directly on a cable core, recommended for direct earth burial.

XnKXSektmxn 0.6/1 kV and **XnKXSektmxnżo 0.6/1 kV** – halogen free cables applied in locations where higher safety level in case of fire is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

YKXSektmy 0.6/1 kV, YKXSektmyžo 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, max.	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387

Operating voltage U ₀ /U	0.6/1 kV	Temperature range during operation	from -30 to +70°C
Voltage test	4.0 kV rms	during installation	from -5 to +50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	PN-HD 603 S1 and IEC 60502-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 1.5 RE	12.5	65.0	218.5		2 x 10 RE	17.1	245.0	515.2
	3 x 1.5 RE	12.9	81.0	241.7		3 x 10 RE	17.9	344.0	625.7
	4 x 1.5 RE	13.6	98.0	274.3		4 x 10 RE	19.3	445.0	761.0
	5 x 1.5 RE	14.5	115.5	308.8		5 x 10 RE	20.8	546.5	896.3
	2 x 2.5 RE	13.3	87.5	258.4		2 x 16 RE	19.2	368.0	704.4
	3 x 2.5 RE	13.7	113.5	292.7		3 x 16 RE	20.2	525.0	876.1
	4 x 2.5 RE	14.6	140.0	338.8		4 x 16 RE	21.8	684.5	1081.0
	5 x 2.5 RE	15.6	167.5	386.0		5 x 16 RE	23.6	844.5	1285.3
	2 x 4.0 RE	14.3	119.5	314.7		2 x 25 RM	23.0	554.0	1021.7
	3 x 4.0 RE	14.8	160.0	364.6		3 x 25 RM	24.2	799.0	1285.7
	4 x 4.0 RE	15.8	202.0	429.5		4 x 25 RM	26.4	1047.0	1600.1
	5 x 4.0 RE	17.0	244.5	494.9		5 x 25 RM	28.8	1295.5	1911.7
	2 x 6.0 RE	15.3	161.5	382.2		4 x 35 SM	27.8	1436.0	1923.0
	3 x 6.0 RE	16.0	222.0	451.9		5 x 35 RM	31.7	1786.0	2487.0
	4 x 6.0 RE	17.1	283.5	539.7		4 x 50 SM	31.7	2025.5	2610.0
	5 x 6.0 RE	18.4	345.5	627.9		5 x 50 RM	36.3	2522.0	3398.0

Other cross-sections and conductor counts are available upon request.

YKXSFTly 0.6/1 kV, YKXSFTlyžo 0.6/1 kV

POWER CABLES



APPLICATIONS

YKXSFTly 0.6/1 kV and **YKXSFTlyžo 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering.

Varnished steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

The cables are suitable for industrial applications, such as production lines 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 (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
 - RE - class 1 single-wire circular,
 - RM - class 2 multi-wire circular,
 - SM - class 2 multi-wire sector shaped,
- cross-linked polyethylene (XLPE) insulation - colours in accordance with PN-93/E-90400 standard,
- insulated conductors laid-up in a cable core; green-yellow protective conductor in **YKXSFTlyžo 0.6/1 kV** cable,
- cable core wrapped in a polyester tape,
- PVC cable sheath,
- varnished steel tape armour,
- black PVC cable covering, other colours also available.

AVAILABLE UPON REQUEST

YKXSFTly-O 0.6/1 kV and **YKXSFTlyžo-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 PN-EN 60811-2-1 standard,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YnKXSFTlyn 0.6/1 kV and **YnKXSFTlynžo 0.6/1 kV** – cables of reduced combustibility, sheathed with PVC of oxygen index bigger than 29%.

YKwXSFTly 0.6/1 kV and **YKwXSFTlyžo 0.6/1 kV** – cables with inner sheath extruded directly on a cable core, recommended for direct earth burial.

XnKXSFTlxn 0.6/1 kV and **XnKXSFTlxnžo 0.6/1 kV** – halogen free cables applied in locations where higher safety level in case of fire is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

YKXSFTly 0.6/1 kV, YKXSFTlyżo 0.6/1 kV
CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, max.	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range	
Voltage test	4.0 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	15 x cable diameter
in work conditions	+ 90°C	Cable combustibility	flame retardant
in short-circuit	+ 250°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	PN-HD 603 S1 and IEC 60502-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 1.5 RE	13.3	28.8	287.0		2 x 10 RE	17.9	192.0	614.0
	3 x 1.5 RE	13.7	43.2	312.0		3 x 10 RE	18.7	288.0	728.4
	4 x 1.5 RE	14.4	57.6	351.0		4 x 10 RE	20.1	384.0	871.0
	5 x 1.5 RE	15.3	72.0	389.0		5 x 10 RE	21.6	480.0	1016.3
	2 x 2.5 RE	14.1	48.0	333.0		2 x 16 RE	20.0	307.2	817.6
	3 x 2.5 RE	14.6	72.0	368.7		3 x 16 RE	21.0	460.8	993.5
	4 x 2.5 RE	15.5	96.0	419.5		4 x 16 RE	22.6	614.4	1209.3
	5 x 2.5 RE	16.4	120.0	473.4		5 x 16 RE	24.5	768.0	1425.2
	2 x 4.0 RE	15.1	76.8	396.1		2 x 25 RM	23.8	480.0	1157.5
	3 x 4.0 RE	15.7	115.2	448.4		3 x 25 RM	25.1	720.0	1425.9
	4 x 4.0 RE	16.7	153.6	518.4		4 x 25 RM	27.2	960.0	1753.5
	5 x 4.0 RE	17.8	192.0	591.7		5 x 25 RM	29.6	1200.0	2079.3
	2 x 6.0 RE	16.2	115.2	470.0		4 x 35 SM	28.6	1344.0	2080.0
	3 x 6.0 RE	16.8	172.8	542.0		5 x 35 RM	32.5	1680.0	2674.0
	4 x 6.0 RE	18.0	230.4	636.6		4 x 50 SM	32.6	1920.0	2792.0
	5 x 6.0 RE	19.2	288.0	732.8		5 x 50 RM	37.1	2400.0	3612.0

Other cross-sections and conductor counts are available upon request.

YKY 0.6/1 kV, YKYžo 0.6/1 kV
equivalent NYY-O 0.6/1 kV and NYY-J 0.6/1 kV**POWER CABLES****APPLICATIONS**

YKY 0.6/1 kV and **YKYžo 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 (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
 - 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-93/E-90400 standard,
- insulated conductors laid-up in a cable core; green-yellow protective conductor in **YKYžo 0.6/1 kV** cable,
- cable core wrapped in a polyester tape,
- black PVC cable sheath, other colours also available.

AVAILABLE UPON REQUEST

YKY-O 0.6/1 kV and **YKYžo-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 PN-EN 60811-2-1 standard,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YnKY 0.6/1 kV and **YnKYžo 0.6/1 kV** – cables of reduced combustibility, sheathed with PVC of oxygen index bigger than 29%.

YKwY 0.6/1 kV and **YKwYžo 0.6/1 kV** – cables with inner sheath extruded directly on a cable core, recommended for direct earth burial.

XnKXS 0.6/1 kV and **XnKXSžo 0.6/1 kV** – halogen free cables applied in locations where higher safety level in case of fire is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

YKY 0.6/1 kV, YKYžo 0.6/1 kV
 equivalent NYY-O 0.6/1 kV and NYY-J 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, max.	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387

Operating voltage U ₀ /U	0.6/1 kV	Temperature range during operation	from -30 to +70°C
Voltage test	4.0 kV rms	temperature during installation	from -5 to +50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	
Conductor temperature limit in work conditions	+ 70°C	single conductor cables	15 x cable diameter
in short-circuit	+ 160°C	multi conductor cables	12 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	PN-93/E-90401, PN-HD 603 S1, IEC 60502-1

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	1 x 1.5 RE	5.8	14.4	49.0		2 x 10 RE	14.9	192.0	416.0
	2 x 1.5 RE	9.7	28.8	132.0		3 x 10 RE	15.7	288.0	527.0
	3 x 1.5 RE	10.1	43.2	154.0		4 x 10 RE	17.2	384.0	661.0
	4 x 1.5 RE	10.9	57.6	184.0		5 x 10 RE	18.8	480.0	793.0
	5 x 1.5 RE	11.7	72.0	214.0					
						1 x 16 RE	9.3	153.6	215.0
	1 x 2.5 RE	6.2	24.0	61.0		2 x 16 RE	16.9	307.2	589.0
	2 x 2.5 RE	10.5	48.0	166.0		3 x 16 RE	17.9	460.8	762.0
	3 x 2.5 RE	11.0	72.0	198.0		4 x 16 RE	19.6	614.4	966.0
	4 x 2.5 RE	11.8	96.0	241.0		5 x 16 RE	21.5	768.0	1165.0
	5 x 2.5 RE	12.8	120.0	283.0					
						1 x 25 RM	11.4	240.0	336.0
	1 x 4.0 RE	7.0	38.4	84.0		2 x 25 RM	20.5	480.0	878.0
	2 x 4.0 RE	12.2	76.8	236.0		3 x 25 RM	21.8	720.0	1144.0
	3 x 4.0 RE	12.9	115.2	286.0		4 x 25 RM	23.9	960.0	1456.0
	4 x 4.0 RE	14.0	153.6	352.0		5 x 25 RM	26.4	1200.0	1760.0
	5 x 4.0 RE	15.2	192.0	416.0					
						1 x 35 RM	12.6	336.0	446.0
	1 x 6.0 RE	7.5	57.6	106.0		4 x 35 SM	24.6	1344.0	1660.0
	2 x 6.0 RE	13.2	115.2	296.0		5 x 35 RM	29.3	1680.0	2318.0
	3 x 6.0 RE	13.9	172.8	366.0					
	4 x 6.0 RE	15.2	230.4	454.0		1 x 50 RM	14.2	480.0	596.0
	5 x 6.0 RE	16.6	288.0	540.0		4 x 50 SM	28.6	1920.0	2320.0
						5 x 50 RM	37.0	2400.0	3410.0
	1 x 10 RE	8.3	96.0	149.0					

Other cross-sections and conductor counts are available upon request.

YKYektmy 0.6/1 kV, YKYektmyžo 0.6/1 kV

POWER CABLES



APPLICATIONS

YKYektmy 0.6/1 kV and **YKYektmyžo 0.6/1 kV** shielded power cables are designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering.

Copper tape overall shield offers protection against external electromagnetic interferences.

The cables are suitable for industrial applications, such as production lines 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 (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
 - 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-93/E-90400 standard,
- insulated conductors laid-up in a cable core; green-yellow protective conductor in **YKYektmyžo 0.6/1 kV** cable,
- cable core wrapped in a polyester tape,
- PVC cable sheath,
- copper tape shield,
- black PVC cable covering, other colours also available.

AVAILABLE UPON REQUEST

YKYektmy-O 0.6/1 kV and **YKYektmyžo-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 PN-EN 60811-2-1 standard,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YnKYektmy 0.6/1 kV and **YnKYektmyžo 0.6/1 kV** – cables of reduced combustibility, sheathed with PVC of oxygen index bigger than 29%.

YKwYektmy 0.6/1 kV and **YKwYektmyžo 0.6/1 kV** – cables with inner sheath extruded directly on a cable core, recommended for direct earth burial.

XnKXSektmy 0.6/1 kV and **XnKXSektmyžo 0.6/1 kV** – halogen free cables applied in locations where higher safety level in case of fire is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

YKYektmy 0.6/1 kV, YKYektmyżo 0.6/1 kV

CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, max.	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387

Operating voltage U ₀ /U	0.6/1 kV	Temperature range during operation	from -30 to +70°C
Voltage test	4.0 kV rms	during installation	from -5 to +50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	PN-93/E-90401, PN-HD 603 S1, IEC 60502

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
	2 x 1.5 RE	12.9	66.5	237.0
	3 x 1.5 RE	13.3	82.5	264.0
	4 x 1.5 RE	14.1	99.5	303.0
	5 x 1.5 RE	15.0	117.5	343.0
	2 x 2.5 RE	13.7	88.5	279.0
	3 x 2.5 RE	14.2	114.5	318.0
	4 x 2.5 RE	15.1	142.0	372.0
	5 x 2.5 RE	16.2	169.5	425.0
	2 x 4.0 RE	15.5	124.5	370.0
	3 x 4.0 RE	16.2	165.5	429.0
	4 x 4.0 RE	17.4	207.5	508.0
	5 x 4.0 RE	18.7	251.0	588.0
	2 x 6.0 RE	16.6	166.5	441.0
	3 x 6.0 RE	17.3	227.0	522.0
	4 x 6.0 RE	18.6	289.0	626.0
	5 x 6.0 RE	20.1	352.0	729.0
	2 x 10 RE	18.4	249.5	582.0
	3 x 10 RE	19.2	349.0	706.0
	4 x 10 RE	20.8	450.5	859.0
	5 x 10 RE	22.5	552.5	1012.0
	2 x 16 RE	20.5	372.5	779.0
	3 x 16 RE	21.5	530.0	967.0
	4 x 16 RE	23.3	690.0	1193.0
	5 x 16 RE	25.3	851.0	1419.0
	2 x 25 RM	24.3	559.0	1118.0
	3 x 25 RM	25.6	803.5	1404.0
	4 x 25 RM	27.9	1052.5	1749.0
	5 x 25 RM	30.5	1301.0	2088.0
	4 x 35 SM	28.6	1440.0	1963.0
	5 x 35 RM	33.5	1792.5	2693.0
	4 x 50 SM	32.8	2030.0	2685.0
	5 x 50 RM	41.7	2550.0	3919.0

Other cross-sections and conductor counts are available upon request.

YKYFtly 0.6/1 kV, YKYFtlyžo 0.6/1 kV**POWER CABLES****APPLICATIONS**

YKYFtly 0.6/1 kV and **YKYFtlyžo 0,6/1 kV** armoured power cables are designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering.

Varnished steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties.

The cables are suitable for industrial applications, such as production lines 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 (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
 - RE - class 1 single-wire circular,
 - RM - class 2 multi-wire circular,
 - SM - class 2 multi-wire sector shaped,
- PVC insulation – colours in accordance with PN-93/E-90400 standard,
- insulated conductors laid-up in a cable core; green-yellow protective conductor in **YKYFtlyžo 0.6/1 kV** cable,
- cable core wrapped in a polyester tape,
- PVC cable sheath,
- varnished steel tape armour,
- black PVC cable covering, other colours also available.

AVAILABLE UPON REQUEST

YKYFtly-O 0.6/1 kV and **YKYFtlyžo-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 PN-EN 60811-2-1 standard,
- resistant to petroleum products mixture, in accordance with French companies' requirements.

YnKYFtlyn 0.6/1 kV and **YnKYFtlynžo 0.6/1 kV** – cables of reduced combustibility, sheathed with PVC of oxygen index bigger than 29%.

YKwYFtly 0.6/1 kV and **YKwYFtlyžo 0.6/1 kV** – cables with inner sheath extruded directly on a cable core, recommended for direct earth burial.

XnKXSFtlyn 0.6/1 kV and **XnKXSFtlynžo 0.6/1 kV** – halogen free cables applied in locations where higher safety level in case of fire is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

YKYFtly 0.6/1 kV, YKYFtlyžo 0.6/1 kV
CHARACTERISTICS

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16	25	35	50
DC conductor resistance at 20°C, max.	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387

Operating voltage U ₀ /U	0.6/1 kV	Operating temperature range during operation	from -30 to +70°C
Voltage test	4.0 kV rms	during installation	from -5 to +50°C
Insulation resistance, minimum	100 MΩ·km	Minimum bending radius	15 x cable diameter
Conductor temperature limit in work conditions	+ 70°C	Cable combustibility	flame retardant
in short-circuit	+ 160°C	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
		Reference standards	PN-93/E-90401, PN-HD 603 S1, IEC 60502

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)	Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km		number x mm ²	mm	kg/km	kg/km
	2 x 1.5 RE	13.7	28.8	309.0		2 x 10 RE	19.2	192.0	687.0
	3 x 1.5 RE	14.1	43.2	338.0		3 x 10 RE	20.1	288.0	815.0
	4 x 1.5 RE	15.0	57.6	383.0		4 x 10 RE	21.6	384.0	979.0
	5 x 1.5 RE	15.9	72.0	428.0		5 x 10 RE	23.3	480.0	1142.0
	2 x 2.5 RE	14.5	48.0	357.0		2 x 16 RE	21.3	307.2	900.0
	3 x 2.5 RE	15.0	72.0	398.0		3 x 16 RE	22.4	460.8	1093.0
	4 x 2.5 RE	16.0	96.0	456.0		4 x 16 RE	24.2	614.4	1331.0
	5 x 2.5 RE	17.0	120.0	516.0		5 x 16 RE	26.2	768.0	1569.0
	2 x 4.0 RE	16.4	76.8	458.0		2 x 25 RM	25.1	480.0	1261.0
	3 x 4.0 RE	17.0	115.2	520.0		3 x 25 RM	26.4	720.0	1553.0
	4 x 4.0 RE	18.2	153.6	608.0		4 x 25 RM	28.8	960.0	1911.0
	5 x 4.0 RE	19.5	192.0	694.0		5 x 25 RM	31.1	1200.0	2268.0
	2 x 6.0 RE	17.4	115.2	537.0		4 x 35 SM	29.4	1344.0	2128.0
	3 x 6.0 RE	18.2	172.8	621.0		5 x 35 RM	34.4	1680.0	2890.0
	4 x 6.0 RE	19.5	230.4	732.0		4 x 50 SM	33.7	1920.0	2878.0
	5 x 6.0 RE	20.9	288.0	845.0		5 x 50 RM	42.5	2400.0	4165.0

Other cross-sections and conductor counts are available upon request.

(N)HXH PH90 0.6/1 kV, (N)HXCH PH90 0.6/1 kV

FIRE RESISTANT HALOGEN FREE POWER CABLES**APPLICATIONS**

(N)HXH PH90 0.6/1 kV and **(N)HXCH PH90 0,6/1 kV** fire resistant power cables, insulated and sheathed with halogen free compounds, are intended for power supply to fire protection equipment which is to operate in fire conditions (e.g. water pumps in fire extinguishing systems, smoke removing fans).

Halogen free 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. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for indoor and outdoor installations.

CONSTRUCTION

- bare copper single wire round conductors meeting requirements of class 1 per PN-EN 60228,
- mica tape and halogen free cross-linked compound insulation - colours in accordance with PH-HD 308,
- insulated conductors laid-up into a cable core,
- inner sheath made of halogen free compound,
- concentric conductor made of bare copper wires and a copper tape binder wrapped over the inner sheath in **(N)XHCX PH90 0.6/1 kV** cable,
- orange cable sheath of halogen free compound (oxygen index bigger than 35%).

(N)HXH PH90 0.6/1 kV, (N)HXCH PH90 0.6/1 kV

CHARACTERISTICS

The cables maintain their functions for 90 minutes, meeting requirements of PN-EN 50200 standard

Conductor cross-section	mm ²	1.5	2.5	4	6	10	16
DC conductor resistance at 20°C, maximum	Ω/km	12.1	7.41	4.61	3.08	1.83	1.15

Operating voltage	0.6/1 kV	Operating temperature range	
Voltage test	4.0 kV rms	during operation	from -30 to +80°C
Insulation resistivity at 90°C, minimum	1 x 10 ¹¹ Ω·cm	during installation	from -5 to +70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	12 x cable diameter
Corrosivity of emitted gases per PN-EN 50267-2-3, IEC 60754-2		Cable combustibility	flame retardant
pH, approximate	6.8	Fire resistance	90 minutes at 842°C
conductivity, approximate	0.4 μS/mm	Combustibility tests	PN-EN 50265-2-4, IEC 60332-3, PN-EN 50200 and PN-EN 50362
Smoke density per PN-EN 50268-2-3, IEC 61034-2		Reference standards	WT-TK-44
light transmittance, minimum	94%		DIN VDE 0266
			PN-HD 604 S1

Cable type	Heat of combustion approximate kWh/m
(N)HXH PH90 0.6/1 kV 2 x 2.5 RE	0.6

Cable type	Heat of combustion approximate kWh/m
(N)HXH PH90 0.6/1 kV 7 x 1.5 RE	1.4

RE – single wire round conductor
RM – multiwire round conductor

Cable installation

Only certified cable fixing systems shall be used. Systems certified according to PN-EN 50200 and DIN 4102 part 12 are recommended and, among others, distributed by OBO BETTERMANN, NIEDAX, BAKS:

- fixing clips (for one cable): type 1015 - OBO Bettermann
- distance saddles (for one cable): type 732 - OBO Bettermann
SAS - NIEDAX
- U-type clamps (for three cables): type 2056M - OBO Bettermann
B or BU - NIEDAX
- cable trays and racks (for number of cables): any system according to DIN 4102 part 12

Cable clips and clamps shall be fixed to walls by any M6 steel bolts or:

- M6 bolting nails, eg.: FNA 6x30/5 - OBO Bettermann
MMS-ST M6 6x60 - OBO Bettermann
NA 6x5 – NIEDAX
- M6 steel anchors, eg.: FNA 6x30 M6/5 - OBO Bettermann
DAM 6x5 – NIEDAX

Distances between fixing points should not be bigger than:

40 cm, for distance type cable clips and clamps
80 cm, for clamps fixed to troughs

☑ = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
(N)HXH PH90	2 x 2.5 RE	14.0	48	304

Cable type	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
(N)HXH-J PH90	7 x 1.5 RE	17.3	101	430

Other cross-sections and conductor counts available on request.

F – Data transmission cables

LAN UTP cat.5e 4 x 2 x 0.5 mm – 155 MHz**LOCAL AREA NETWORK CABLE**

**APPLICATIONS**

LAN UTP cat.5e 4 x 2 x 0.5 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 not sensitive to electromagnetic interferences.

The cable is 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 is suitable for 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

LAN UTP-H cat.5e 4 x 2 x 0.5 mm – halogen free material sheathed cable applied in locations where, in case of fire, higher safety level is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

LAN UTP cat.5e 4 x 2 x 0.5 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, maximum	2%
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay T	534+36/√f ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
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 ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-7·lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-5, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss between pairs, 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	65.3	62.3	68.3	63.8	60.8
4	4.3	56.3	53.3	57.2	51.7	48.7
8	5.9	51.8	48.8	51.0	45.7	42.7
10	6.6	50.3	47.3	48.8	43.8	40.8
16	8.2	47.3	44.3	44.0	39.7	36.7
20	9.2	45.8	42.8	41.5	37.7	34.7
25	10.5	44.3	41.3	38.9	35.8	32.8
31.25	11.8	42.9	39.9	36.2	33.9	30.9
62.50	17.1	38.4	35.4	26.4	27.8	24.8
100	22.0	35.3	32.3	18.3	23.8	20.8
155	28.1	32.5	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
LAN UTP cat.5e	4 x 2 x 0.5	5.5	16.3	29.3
LAN UTP-H cat.5e	4 x 2 x 0.5	6.4	16.3	45.0

LAN UTP-H cat.5e 4 x 2 x 0.5 mm – 155 MHz**LOCAL AREA NETWORK CABLE**

**APPLICATIONS**

LAN UTP-H cat.5e 4 x 2 x 0.5 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 not sensitive to electromagnetic interferences.

The cable is 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 level 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 cable is suitable for 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,
- orange halogen free material (H) cable sheath, other colours also available.

LAN UTP-H cat.5e 4 x 2 x 0.5 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	2%
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay T	534+36/√f ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
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 ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-7·lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-5, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss between pairs, 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	65.3	62.3	68.3	63.8	60.8
4	4.3	56.3	53.3	57.2	51.7	48.7
8	5.9	51.8	48.8	51.0	45.7	42.7
10	6.6	50.3	47.3	48.8	43.8	40.8
16	8.2	47.3	44.3	44.0	39.7	36.7
20	9.2	45.8	42.8	41.5	37.7	34.7
25	10.5	44.3	41.3	38.9	35.8	32.8
31.25	11.8	42.9	39.9	36.2	33.9	30.9
62.50	17.1	38.4	35.4	26.4	27.8	24.8
100	22.0	35.3	32.3	18.3	23.8	20.8
155	28.1	32.5	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
LAN UTP-H cat.5e	4 x 2 x 0.5	6.4	16.3	45.0

LAN UTP cat.6 4 x 2 x 0.57 mm – 250 MHz**LOCAL AREA NETWORK CABLE**

**APPLICATIONS**

LAN UTP cat.6 4 x 2 x 0.57 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 not sensitive to electromagnetic interferences.

The cable is 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 is suitable for 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,
- PVC cable sheath, grey RAL 7035, other colours also available.

AVAILABLE UPON REQUEST

LAN UTP-H cat.6 4 x 2 x 0.57 mm – halogen free material sheathed cable applied in locations where, in case of fire, higher safety level is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

LAN UTP cat.6 4 x 2 x 0.57 mm – 250 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	2%
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay T	534+36/√f ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
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
Velocity ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-7·lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-5, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss between pairs, 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	2.0	74.3	72.3	67.3	67.8	64.8
4	3.8	65.3	63.3	56.5	55.7	52.7
8	5.9	60.8	58.8	50.4	49.7	46.7
10	6.0	59.3	57.3	48.3	47.8	44.8
16	7.6	56.3	54.3	43.7	43.7	40.7
20	8.5	54.8	52.8	41.3	41.7	38.7
25	9.6	53.3	51.3	38.8	39.8	36.8
31.25	10.7	51.9	49.9	36.2	37.9	34.9
62.50	15.5	47.4	45.4	26.9	31.8	28.8
100	19.9	44.3	42.3	19.4	27.8	24.8
150	24.9	41.7	39.7	11.8	24.2	21.2
200	29.2	39.8	37.8	5.6	21.7	18.7
250	33.0	38.3	36.3	0.3	19.8	16.8

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
LAN UTP cat.6	4 x 2 x 0.57	6.1	19.9	41.4

LAN FTP cat.5e 4 x 2 x 0.5 mm – 155 MHz**LOCAL AREA NETWORK CABLE****APPLICATIONS**

LAN FTP cat.5e 4 x 2 x 0.5 mm cable is intended for multimedia computer networks (data, sound and HDTV transmission) including structural wiring of buildings, in industrial and other dedicated networks sensitive to electromagnetic interferences.

The cable is protected against interferences from external electromagnetic fields and emission of interferences out of the cable by means of an overall shield.

The cable is 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 is suitable for 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 tape and an annealed tinned copper drain wire of diameter 0.5 mm,
- PVC cable sheath, grey RAL 7035, other colours also available.

AVAILABLE UPON REQUEST

LAN FTP-H cat.5e 4 x 2 x 0.5 mm – halogen free material sheathed cable applied in locations where, in case of fire, higher safety level is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

LAN FTP cat.5e 4 x 2 x 0.5 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, maximum	2%
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km	Phase delay T	534+36/√f ns/100 m
Insulation resistance, minimum	5000 MΩ·km	Phase delay dispersion of symmetrical circuits	45 ns/100 m
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 ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-8.6·lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-5, ISO/IEC 11801, TIA/EIA 568 A
Shielding attenuation at 30 ÷ 1000 MHz, minimum	50 dB		
Shielding impedance at 10 MHz, maximum	100 mΩ/m		

Frequency MHz	Attenuation loss between pairs, 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	65.3	62.3	68.3	63.8	60.8
4	4.3	56.3	53.3	57.2	51.7	48.7
8	5.9	51.8	48.8	51.0	45.7	42.7
10	6.6	50.3	47.3	48.8	43.8	40.8
16	8.2	47.3	44.3	44.0	39.7	36.7
20	9.2	45.8	42.8	41.5	37.7	34.7
25	10.5	44.3	41.3	38.9	35.8	32.8
31.25	11.8	42.9	39.9	36.2	33.9	30.9
62.50	17.1	38.4	35.4	26.4	27.8	24.8
100	22.0	35.3	32.3	18.3	23.8	20.8
155	28.1	32.5	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
LAN FTP cat.5e	2 x 2 x 0.5	5.6	9.8	29.9
LAN FTP-H cat.5e	4 x 2 x 0.5	6.0	17.6	37.1

LAN FTP cat.5e 4 x 2 x 0.14c mm²

LOCAL AREA NETWORK CABLE



APPLICATIONS

LAN FTP cat.5e 4 x 2 x 0.14c mm² cable is a patch cable, 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 cable is protected against interferences from external electromagnetic fields and emission of interferences out of the cable by means of an overall shield.

The cable is 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 is suitable for indoor installations.

CONSTRUCTION

- flexible multiwire conductors, stranded of annealed tin-plated copper wires (7x0.16 mm) of cross-section 0.14 mm² equal to 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 tape and an annealed tinned copper drain wire of diameter 0.5 mm,
- PVC cable sheath, grey RAL 7035, other colours also available.

AVAILABLE UPON REQUEST

LAN FTP-H cat.5e 4 x 2 x 0.14c mm² – halogen free material sheathed cable applied in locations where, in case of fire, higher safety level is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

LAN FTP cat.5e 4 x 2 x 0.14c mm²

CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 30 ÷ 1000 MHz, minimum	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, maximum	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 ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-8.6·lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-6, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss between pairs, 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	3.2	65.0	62.3	68.3	63.8	60.8
4	6.0	56.0	53.3	57.2	51.7	48.7
8		50.0	48.8	51.0	45.7	42.7
10	9.5	50.3	47.3	48.8	43.8	40.8
16	12.1	47.0	44.3	44.0	39.7	36.7
20	13.5	46.0	42.8	41.5	37.7	34.7
25		44.3	41.3	38.9	35.8	32.8
31.25	17.1	43.0	39.9	36.2	33.9	30.9
62.50	24.8	38.0	35.4	26.4	27.8	24.8
100	32.0	35.0	32.3	18.3	23.8	20.8
125	34.0	34.0	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
LAN FTP cat.5e	4 x 2 x 0.14c	5.0	13	29
LAN FTP-H cat.5e	4 x 2 x 0.14c	5.0	13	29

LAN FTP-C cat.5e 4 x 2 x 0.14c mm²**LOCAL AREA NETWORK CABLE****APPLICATIONS**

LAN FTP-C cat.5e 4 x 2 x 0.14c mm² cable is a patch cable, 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 cable is protected against interferences from external electromagnetic fields and emission of interferences out of the cable by means of an overall shield.

The cable is 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 is suitable for indoor installations.

CONSTRUCTION

- flexible multiwire conductors, stranded of annealed tin-plated copper wires (7x0.16 mm) of cross-section 0.14 mm² equal to 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 tape and a tinned copper wire braid,
- PVC cable sheath, grey RAL 7035, other colours also available.

AVAILABLE UPON REQUEST

LAN FTP-C-H cat.5e 4 x 2 x 0.14c mm² – halogen free material sheathed cable applied in locations where, in case of fire, higher safety level is required. The cable is flame retardant and its smoke emission is low, emitted fumes are non toxic and non corrosive.

LAN FTP-C-11Y cat.5e 4 x 2 x 0.14c mm² – soft polyurethane sheathed cable (11Y) of enhanced protection against mechanical damage, particularly to abrasion and tear, also resistant to oils, petrol, bacteria and ultraviolet radiation.

LAN FTP-C cat.5e 4 x 2 x 0.14c mm²

CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 30 ÷ 1000 MHz, minimum	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, maximum	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 ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-8.6·lg(f/20) dB	Reference standards	PN-EN 50288-2-2, IEC 61156-6, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss between pairs, 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	3.2	65.0	62.3	68.3	63.8	60.8
4	6.5	56.0	53.3	57.2	51.7	48.7
8	8.9	50.0	48.8	51.0	45.7	42.7
10	9.9	50.3	47.3	48.8	43.8	40.8
16	12.3	47.0	44.3	44.0	39.7	36.7
20	13.8	46.0	42.8	41.5	37.7	34.7
25	15.8	44.3	41.3	38.9	35.8	32.8
31.25	17.7	43.0	39.9	36.2	33.9	30.9
62.50	25.7	38.0	35.4	26.4	27.8	24.8
100	33.0	35.0	32.3	18.3	23.8	20.8
125	42.0	34.0	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
LAN FTP-C cat.5e	4 x 2 x 0.14c	5.4	25	37
LAN FTP-C-H cat.5e	4 x 2 x 0.14c	5.4	25	37
LAN FTP-C-11Y cat.5e	4 x 2 x 0.14c	6.2	22.7	47

LAN FTP-C-11Y cat.5e 4 x 2 x 0.14c mm²**LOCAL AREA NETWORK CABLE****APPLICATIONS**

LAN FTP-C-11Y cat.5e 4 x 2 x 0.14c mm² cable is a patch cable, 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 cable is 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 is protected against interferences from external electromagnetic fields and emission of interferences out of the cable by means of an overall shield.

The cable is suitable for indoor installations.

CONSTRUCTION

- flexible multiwire conductors, stranded of annealed tin-plated copper wires (7x0.16 mm) of cross-section 0.14 mm² equal to 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 tape and a tinned copper wire braid,
- soft polyurethane (11Y) cable sheath, grey RAL 7035, other colours also available.

LAN FTP-C-11Y cat.5e 4 x 2 x 0.14c mm²

CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 30 ÷ 1000 MHz, minimum	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, maximum	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 ratio	65%	Minimum bending radius	4 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5·lg(f) dB	Cable combustibility	flame retardant
at 10 ÷ 20 MHz	25 dB	Combustibility tests	PN-EN 60332-1-2
at 20 ÷ 125 MHz	25-8.6·lg(f/20) dB	Reference standards	PN-EN 50288-2-1, IEC 61156-6, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss between pairs, 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	3.2	65.0	62.3	68.3	63.8	60.8
4	6.5	56.0	53.3	57.2	51.7	48.7
8	8.9	50.0	48.8	51.0	45.7	42.7
10	9.9	50.3	47.3	48.8	43.8	40.8
16	12.3	47.0	44.3	44.0	39.7	36.7
20	13.8	46.0	42.8	41.5	37.7	34.7
25	15.8	44.3	41.3	38.9	35.8	32.8
31.25	17.7	43.0	39.9	36.2	33.9	30.9
62.50	25.7	38.0	35.4	26.4	27.8	24.8
100	33.0	35.0	32.3	18.3	23.8	20.8
125	42.0	34.0	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
LAN FTP-C-11Y cat.5e	4 x 2 x 0.14c	6.2	22.7	47

TECHNODATA LAN-T10 cat.5 1 x 2 x 0.34c mm²

LOCAL AREA NETWORK CABLE**APPLICATIONS**

TECHNODATA LAN-T10 kat.5 1 x 2 x 0.34c mm² cable is intended for multimedia computer networks (data, sound and HDTV transmission) 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

- 0.35 mm² cross-section flexible multiwire conductors, stranded of annealed tin-plated copper wires (7 x 0.25 mm),
- foam-skin polyethylene (PE) insulation - 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 LAN-T10n kat.5 1 x 2 x 0.34c mm² – 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 cat.5 1 x 2 x 0.34c mm²

CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 1 ÷ 200 MHz, minimum	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	3%
Operating voltage	150 V	Operating temperature range	from -40 to +70 °C
Voltage test	700 V rms	Minimum bending radius	10 x cable diameter
Velocity ratio	65%	Reference standards	PN-EN 50288-2-1, IEC 61156-1, ISO/IEC 11801, TIA/EIA 568 A
Return loss, minimum at 1 ÷ 20 MHz	23 dB		
at 20 ÷ 200 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

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
LAN-T10	1 x 2 x 0.34c	10.5	25	95
LAN-T10n	1 x 2 x 0.34c	10.5 x 18.0	25	140

TECHNODATA LAN-T11B cat.5e 4 x 2 x 0.5 mm

LOCAL AREA NETWORK CABLE**APPLICATIONS**

TECHNODATA LAN-T11B kat.5e 4 x 2 x 0.5 mm cable is intended for multimedia computer networks (data, sound and HDTV transmission) 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: white-blue + blue, white-orange + orange, white-green + green, white-brown + 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 LAN-T11Bn kat.5e 1 x 2 x 0.5 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-T11B cat.5e 4 x 2 x 0.5 mm

CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 1 ÷ 200 MHz, minimum	75 dB
Mutual capacitance 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	188 Ω/km
Insulation resistance, minimum	150 MΩ·km	Resistance unbalance of any pair of conductors	3%
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 ratio	65%	Minimum bending radius	15 x cable diameter
Return loss, minimum at 4 ÷ 10 MHz	20+5lg(f) dB	Reference standards	PN-EN 50288-2-1, IEC 61156-1, ISO/IEC 11801, TIA/EIA 568 A
at 10 ÷ 20 MHz	25 dB		
at 20 ÷ 100 MHz	25-7lg(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

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
LAN-T11B	4 x 2 x 0.5c	8.9	17	80
LAN-T11Bn	4 x 2 x 0.5c	8.9 x 16.0	18	125

TECHNODATA LAN-T14 3 x 2 x 1.0 mm² - 10 MHz

LOCAL AREA NETWORK CABLE**APPLICATIONS**

TECHNODATA LAN-T14 3 x 2 x 1.0 mm² 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

- 1.0 mm² cross-section flexible multiwire conductors, stranded of annealed tin-plated copper wires (7 x 0.43 mm),
- foam-skin polyethylene insulation: white + brown, white + green, white + 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 longitudinally applied over the cable core,
- black polyethylene (PE) cable sheath.

AVAILABLE UPON REQUEST

TECHNODATA LAN-T14n 3 x 2 x 1.0 mm² – cable intended for suspension on poles. The cable is integrated with a steel rope by an 8 shape polyethylene (PE) common sheath.

TECHNODATA LAN-T14 3 x 2 x 1.0 mm² - 10 MHz**CHARACTERISTICS**

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 1 ÷ 200 MHz, minimum	75 dB
Mutual capacitance at 1 kHz, approximate	56 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	39 Ω/km
Insulation resistance, minimum	150 MΩ·km	Resistance unbalance of any pair of conductors	3%
Operating voltage	150 V	Operating temperature range	from -40 to +70 °C
Voltage test	700 V rms	Minimum bending radius	10 x cable diameter
Velocity ratio	65%	Reference standards	PN-EN 50173 and ISO/IEC 11801
Return loss at 1 ÷ 10 MHz, minimum	23 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	1.7	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

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
LAN-T14	3 x 2 x 1.0	13.4	57.6	178.5
LAN-T14n	3 x 2 x 1.0	13.4 x 21.0	57.6	224

TECHNODATA LAN-T15 cat.5 4 x 2 x 0.8 mm

LOCAL AREA NETWORK CABLE**APPLICATIONS**

TECHNODATA LAN-T15 kat.5 4 x 2 x 0.8 mm cable is intended for multimedia computer networks (data, sound and HDTV transmission) 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: white-blue + blue, white-orange + orange, white-green + green, white-brown + 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 cat.5 4 x 2 x 0.8 mm

CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω	Shielding attenuation at 1 ÷ 200 MHz, minimum	75 dB
Mutual capacitance at 1 kHz, approximate	50 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	75 Ω/km
Insulation resistance, minimum	150 MΩ·km	Resistance unbalance of any pair of conductors	3%
Operating voltage	150 V	Operating temperature range	from -40 to +70 °C
Voltage test	700 V rms	Minimum bending radius	10 x cable diameter
Velocity ratio	65%	Reference standards	PN-EN 50288-2-2, IEC 61156-5, ISO/IEC 11801, TIA/EIA 568 A
Return loss, minimum at 1 ÷ 20 MHz	23 dB		
at 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

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
LAN-T15	4 x 2 x 0.8	11.9	41	144

G – Fire alarm cables

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 Research and Development Centre for Fire Protection (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej) at Józefów – **Certificate of Conformity No. 668/200/2004**.

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

The cables are suitable for indoor installations.

CONSTRUCTION of YnTKSY and YnTKSYekw CABLES

- bare annealed copper single wire round conductors of diameter 0.8 mm, 1.0 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 of YnTKSXekw CABLES

- bare annealed copper single wire round conductors of diameter 1.05 mm,
- polyethylene (PE) insulation - colours in accordance with PN-92/T-90321 standard,
- insulated conductors twisted into pairs or a quad,
- pairs laid-up into cable a core,
- 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
Conductor diameter		mm	0.8	1.0	1.5	0.8	1.0	1.5	1.05
DC loop resistance at 20°C, maximum		Ω/km	75	48	24	75	48	24	48
Capacitance between conductors at 1 kHz	maximum	nF/km	120	120	120	150	150	150	65
	average		100	100	100	140	140	140	63

Operating voltage	150 V	Operating temperature range	
Voltage test	1.5 kV rms	during operation	from -30 to +80°C
Insulation resistance, minimum	20 MΩ·km	during 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
		Reference standards	WT-TK-4 PN-92/T-90320 PN-92/T-90321

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
YnTKSY	1 x 2 x 0.8	4.2	10.0	24.5
YnTKSY	1 x 4 x 0.8	4.8	20.0	39.0
YnTKSY	3 x 2 x 0.8	6.5	30.0	57.5
YnTKSY	4 x 2 x 0.8	7.1	40.0	72.0
YnTKSY	1 x 2 x 1.0	4.8	15.5	32.0
YnTKSYekw	1 x 2 x 0.8	4.4	11.0	27.0
YnTKSYekw	1 x 4 x 0.8	5.0	21.0	42.0

Cable type	Number of conductors x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
YnTKSYekw	2 x 2 x 0.8	6.4	21.5	46.5
YnTKSYekw	3 x 2 x 0.8	6.7	31.5	60.5
YnTKSYekw	4 x 2 x 0.8	7.3	41.5	74.5
YnTKSYekw	1 x 2 x 1.0	5.2	17.0	36.5
YnTKSXekw	1 x 2 x 1.05	6.7	18.5	48.5
YnTKSXekw	1 x 4 x 1.05	7.7	35.5	78.5

Other diameters and conductor counts available on request.

HTKSH, HTKSHekw**HALOGEN FREE SWITCHBOARD CABLES****APPLICATIONS**

HTKSH and **HTKSHekw** 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.

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.

The cables are certified by Research and Development Centre for Fire Protection (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej) at Józefów – **Certificate of Conformity No. 1282/2002**.

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

The cables are suitable for indoor installations.

CONSTRUCTION

- bare annealed copper single wire round conductors meeting requirements of class 1 per PN-EN 60228,
- 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,
- red cable sheath of special halogen free compound (oxygen index bigger than 35%).

HTKSH, HTKSHekw

CHARACTERISTICS

Cable type			HTKSH			HTKSHekw		
Conductor diameter		mm	0.8	1.0	1.5	0.8	1.0	1.5
DC loop resistance at 20°C, maximum		Ω/km	75	48	24	75	48	24
Capacitance between conductors at 1 kHz	maximum	nF/km	120	120	120	200	200	200
	average		60	70	70	90	130	130

Operating voltage	150 V	Operating temperature range	
Voltage test	1.5 kV rms	during operation	from -30 to +80°C
Insulation resistance, minimum	500 MΩ·km	during installation	from -5 to +70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Corrosivity of emitted gases per PN-EN 50267-2-3, IEC 60754-2		Cable combustibility	flame retardant
pH, approximate	6.8	Combustibility tests	PN-EN 50265-2-1 and IEC 60332-1
conductivity, approximate	0.4 μS/mm	Reference standards	WT-TK-4 PN-92/T-90320 PN-92/T-90321
Smoke density per PN-EN 50268-2-3, IEC 61034-2			
light transmittance, minimum	94%		

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
HTKSH	1 x 4 x 0.5	5.1	7.5	39.0
HTKSH	2 x 2 x 0.5	6.0	7.5	45.3
HTKSH	3 x 2 x 0.5	6.2	11.3	52.1
HTKSH	1 x 2 x 0.8	5.7	9.6	43.8
HTKSH	2 x 2 x 0.8	7.6	19.3	70.3
HTKSH	3 x 2 x 0.8	7.9	30.0	57.5
HTKSH	1 x 2 x 1.0	6.4	15.1	56.7
HTKSH	2 x 2 x 1.0	8.9	30.2	95.0

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm ²	mm	kg/km	kg/km
HTKSHekw	1 x 4 x 0.8	6.4	19.3	63.6
HTKSHekw	3 x 2 x 0.8	8.1	29.0	89.8
HTKSHekw	5 x 2 x 0.8	10.6	49.5	126.7
HTKSHekw	11 x 2 x 0.8	12.7	107.5	225.8
HTKSHekw	1 x 2 x 1.0	6.6	15.1	59.8

Other diameters and pair counts available on request.

HTKSH PH90, HTKSHekw PH90

FIRE RESISTANT HALOGEN FREE CABLES



APPLICATIONS

HTKSH PH90 and **HTKSHekw PH90** fire resistant and halogen free cables are intended for installation in alarm, signalling, transmission, sound warning and similar systems, also for data processing systems and for analogue or digital data transmission in industrial electronics and control applications 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 – 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 certified by Research and Development Centre for Fire Protection (Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej) at Józefów – **Certificate of Conformity No. 1558/2003**.

Cable circuits are protected by an overall electrostatic shield against external electric field interferences.

The cables are suitable for indoor installations.

CONSTRUCTION

- bare annealed copper single wire round conductors meeting requirements of class 1 per PN-EN 60228,
- 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,
- red cable sheath of halogen free compound (oxygen index bigger than 35%).

HTKSH PH90, HTKSHekw PH90

CHARACTERISTICS

The cables maintain their functions for 90 minutes, meeting requirements of PN-EN 50200 standard

Cable type		HTKSH PH90						HTKSHekw PH90					
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 ²	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
Capacitance between conductors at 1 kHz	maximum	120						200					
	average	60						90					

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 + 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
Corrosivity of emitted gases per PN-EN 50267-2-3, IEC 60754-2		Fire resistance	90 minutes at 842°C
pH, approximate	6.8	Combustibility tests	PN-EN 50265-2-1 and PN-EN 50200
conductivity, approximate	0.4 μS/mm	Reference standards	WT-TK-43
Smoke density per PN-EN 50268-2-3, IEC 61034-2			PN-92/T-90320
light transmittance, minimum	94%		PN-92/T-90321

Cable type	Heat of combustion, approximate kWh/m
HTKSH PH90 1 x 2 x 0.8	0.14
HTKSH PH90 2 x 2 x 0.8	0.21
HTKSH PH90 1 x 2 x 1.0	0.15
HTKSH PH90 2 x 2 x 1.0	0.24

Cable type	Heat of combustion, approximate kWh/m
HTKSHekw PH90 1 x 2 x 1.0	0.17

Cable installation: by means of type 1015 cable clamps produced by OBO Betterman fixed to walls at 30 cm distances by any M6 steel sleeves and any M6 steel screws. The depth of bolting in a concrete wall should not be smaller than 40 mm.

CE = the cable meets requirements of the low voltage directive 73/23/EEC and 93/68/EEC

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
HTKSH	1 x 2 x 0.8	6.5	9.6	61
HTKSH	2 x 2 x 0.8	8.0	19.2	77
HTKSH	1 x 2 x 1.0	7.1	15.1	67
HTKSH	2 x 2 x 1.0	10.4	30.2	92

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
HTKSHekw	1 x 2 x 1.0	7.4	15.1	73

Other diameters and conductor counts available on request.