TECHNOKABEL®

CE RoHS

ISO 9001:2008

TECHNOKONTROL IB-YSL(St)Y PIMF

INTRINSICALLY SAFE CABLES

APPLICATIONS

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

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

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

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

Sheathing PVC of high oxygen index is UV radiation and weather resistant, is self-extinguishing and flame retardant. The cables pass combustibility test according to PN-EN 60332-3 standard.

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

The cables are suitable for fixed indoor and outdoor installations.

CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation, identification of pairs:
  ”a” wire – black insulation and white pair number printed on it,
  ”b” wire – white insulation and black pair number printed on it,
- insulated conductors twisted into pairs,
- pair shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- shielded pairs laid-up in layers,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire (class 2),
- oil, petrol and UV radiation resistant and self-extinguishing (oxygen index bigger than 29%) PVC cable sheath, blue RAL 5015 according to VDE 0165 6.1.3.2.3.

AVAILABLE UPON REQUEST

TECHNOKONTROL IB-YSL(St)Yv PIMF - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

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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 Uo/U	300/500 V
Voltage test	3.0 kV rms
Insulation resistance, minimum	20 MΩ·km
Inductance, approximate	0.7 mH/km

Operating temperature range	
for fixed installation	from - 30 to + 80°C
for movable installation	from - 5 to + 70°C
Minimum bending radius	10 x cable diameter
Cable combustibility	flame retardant
Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
Oil resistance	PN-EN 60811-404

CE = the cable meets requirements of the low voltage directive 2014/35/EU

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm^2	mm	kg/km	kg/km
0792 026	2 x 2 x 0,5	8.9	28.2	106
0792 033	3 x 2 x 0,5	9.4	39.9	131
0792 034	4 x 2 x 0,5	10.2	51.6	153
0792 035	5 x 2 x 0,5	11.0	63.4	174
0792 036	6 x 2 x 0,5	11.9	75.1	206
0792 037	7 x 2 x 0,5	11.9	86.8	215
0792 024	8 x 2 x 0,5	12.6	98.5	235
0792 003	10 x 2 x 0,5	14.2	121.9	287
0792 010	12 x 2 x 0,5	14.8	145.3	323
0792 038	16 x 2 x 0,5	16.7	192.2	406
0792 039	18 x 2 x 0,5	17.5	215.6	446
0792 040	20 x 2 x 0,5	18.3	239.0	491
0792 041	25 x 2 x 0,5	20.2	297.6	599
0792 042	30 x 2 x 0,5	21.8	356.2	753
0792 006	2 x 2 x 0,75	9.5	37.8	121
0792 027	3 x 2 x 0,75	10.0	54.3	155
0792 021	4 x 2 x 0,75	10.9	70.8	182
0792 017	5 x 2 x 0,75	11.9	87.4	211
0792 032	6 x 2 x 0,75	12.8	103.9	249
0792 028	7 x 2 x 0,75	12.8	120.4	261
0792 022	8 x 2 x 0,75	13.6	136.9	288
0792 043	10 x 2 x 0,75	15.4	169.9	353
0792 005	12 x 2 x 0,75	16.1	202.9	400
0792 015	16 x 2 x 0,75	18.1	269.0	505
0792 044	20 x 2 x 0,75	19.9	335.0	612
0792 001	2 x 2 x 1,0	10.2	47.4	140
0792 030	3 x 2 x 1,0	10.7	68.7	182
0792 045	4 x 2 x 1,0	11.7	90.0	215
0792 023	5 x 2 x 1,0	12.7	111.4	249
0792 020	6 x 2 x 1,0	13.8	132.7	298

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm^2	mm	kg/km	kg/km
0792 046	7 x 2 x 1,0	13.8	154.0	314
0792 004	8 x 2 x 1,0	14.7	175.3	347
0792 002	10 x 2 x 1,0	16.6	217.9	425
0792 014	12 x 2 x 1,0	17.3	260.5	483
0792 013	16 x 2 x 1,0	19.6	345.8	614
0792 047	20 x 2 x 1,0	21.6	431.0	749
0792 018	2 x 2 x 1,5	11.1	66.6	172
0792 048	3 x 2 x 1,5	11.7	97.5	226
0792 016	4 x 2 x 1,5	12.8	128.4	270
0792 049	5 x 2 x 1,5	14.0	159.4	316
0792 050	6 x 2 x 1,5	15.2	190.3	378
0792 051	7 x 2 x 1,5	15.2	221.2	401
0792 019	8 x 2 x 1,5	16.2	252.1	444
0792 052	10 x 2 x 1,5	18.3	313.9	545
0792 007	12 x 2 x 1,5	19.2	375.7	625
0792 009	16 x 2 x 1,5	21.7	499.4	798
0792 008	20 x 2 x 1,5	24.3	623.0	996
0792 053	2 x 2 x 2,5	13.2	105.0	244
0792 054	3 x 2 x 2,5	14.0	155.1	328
0792 055	4 x 2 x 2,5	15.3	205.2	392
0792 056	5 x 2 x 2,5	16.8	255.4	461
0792 057	6 x 2 x 2,5	18.4	305.5	558
0792 058	7 x 2 x 2,5	18.4	355.6	593
0792 059	8 x 2 x 2,5	19.6	405.7	657
0792 060	10 x 2 x 2,5	22.3	505.9	813
0792 061	12 x 2 x 2,5	23.8	606.1	957
0792 062	16 x 2 x 2,5	26.9	806.6	1219
0792 063	20 x 2 x 2,5	30.1	1007.0	1513

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

TECHNOKABEL S.A., ul. Nasielska 55, 04-343 Warszawa, Poland
Export Department: tel +(48) 22 516 97 67, fax +(48) 22 516 97 87
www.technokabel.com.pl
export@technokabel.com.pl