

TECHNOKONTROL IB1-YSL(St)Y PIMF**INTRINSICALLY SAFE CABLES****APPLICATIONS**

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

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

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

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

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

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

The cables are suitable for fixed indoor and outdoor installations.

CONSTRUCTION

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

AVAILABLE UPON REQUEST

TECHNOKONTROL IB1-YSL(St)Yv PIMF - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

TECHNOKONTROL IB1-YSL(St)Y PIMF

CHARACTERISTICS

Conductor cross-section	mm 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 _{o/U}	0.6/1 kV	Operating temperature range	
Voltage test	3.5 kV rms	for fixed installation	from - 30 to + 80°C
Insulation resistance, minimum	20 MΩ·km	for movable installation	from - 5 to + 70°C
Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
		Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
		Oil resistance	PN-EN 60811-404

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
0997 021	2 x 2 x 0,5	10.6	28.2	132
0997 022	3 x 2 x 0,5	11.1	39.9	171
0997 023	4 x 2 x 0,5	12.1	51.6	198
0997 024	5 x 2 x 0,5	13.3	63.4	230
0997 025	6 x 2 x 0,5	14.4	75.1	273
0997 026	7 x 2 x 0,5	14.4	86.8	282
0997 027	8 x 2 x 0,5	15.3	98.5	309
0997 028	10 x 2 x 0,5	17.3	121.9	377
0997 012	12 x 2 x 0,5	18.1	145.3	425
0997 029	16 x 2 x 0,5	20.5	192.2	535
0997 030	18 x 2 x 0,5	21.5	215.6	587
0997 031	20 x 2 x 0,5	22.5	239.0	647
0997 032	25 x 2 x 0,5	25.2	297.6	809
0997 033	30 x 2 x 0,5	27.3	356.2	1009
0997 034	2 x 2 x 0,75	11.2	37.8	153
0997 035	3 x 2 x 0,75	11.8	54.3	198
0997 003	4 x 2 x 0,75	12.9	70.8	231
0997 018	5 x 2 x 0,75	14.1	87.4	267
0997 036	6 x 2 x 0,75	15.3	103.9	319
0997 037	7 x 2 x 0,75	15.3	120.4	331
0997 011	8 x 2 x 0,75	16.3	136.9	364
0997 038	10 x 2 x 0,75	18.5	169.9	447
0997 010	12 x 2 x 0,75	19.3	202.9	505
0997 001	16 x 2 x 0,75	21.9	269.0	639
0997 039	20 x 2 x 0,75	24.5	335.0	792
0997 006	2 x 2 x 1,0	11.8	47.4	171
0997 014	3 x 2 x 1,0	12.5	68.7	227
0997 009	4 x 2 x 1,0	13.6	90.0	265
0997 004	5 x 2 x 1,0	15.0	111.4	310
0997 040	6 x 2 x 1,0	16.3	132.7	371

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm ²	mm	kg/km	kg/km
0997 041	7 x 2 x 1,0	16.3	154.0	388
0997 013	8 x 2 x 1,0	17.3	175.3	425
0997 042	10 x 2 x 1,0	19.7	217.9	524
0997 005	12 x 2 x 1,0	20.6	260.5	595
0997 007	16 x 2 x 1,0	23.7	345.8	775
0997 008	20 x 2 x 1,0	26.1	431.0	935
0997 016	2 x 2 x 1,5	12.7	66.6	206
0997 043	3 x 2 x 1,5	13.4	97.5	275
0997 019	4 x 2 x 1,5	14.7	128.4	326
0997 017	5 x 2 x 1,5	16.2	159.4	382
0997 044	6 x 2 x 1,5	17.6	190.3	459
0997 045	7 x 2 x 1,5	17.6	221.2	483
0997 002	8 x 2 x 1,5	18.8	252.1	534
0997 046	10 x 2 x 1,5	21.4	313.9	659
0997 047	12 x 2 x 1,5	22.4	375.7	752
0997 048	16 x 2 x 1,5	25.8	499.4	978
0997 049	20 x 2 x 1,5	28.9	623.0	1215
0997 050	2 x 2 x 2,5	14.2	105.0	271
0997 051	3 x 2 x 2,5	15.0	155.1	363
0997 015	4 x 2 x 2,5	16.5	205.2	435
0997 052	5 x 2 x 2,5	18.1	255.4	511
0997 020	6 x 2 x 2,5	19.8	305.5	618
0997 053	7 x 2 x 2,5	19.8	355.6	655
0997 054	8 x 2 x 2,5	21.1	405.7	725
0997 055	10 x 2 x 2,5	24.5	505.9	918
0997 056	12 x 2 x 2,5	25.6	606.1	1050
0997 057	16 x 2 x 2,5	29.5	806.6	1372
0997 058	20 x 2 x 2,5	32.6	1007.0	1671

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