

TECHNOKONTROL IB1-YSL(St)Y

INTRINSICALLY SAFE CABLES



APPLICATIONS

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

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

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

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

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

The cables are suitable for fixed indoor installations.

CONSTRUCTION

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

AVAILABLE UPON REQUEST

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

TECHNOKONTROL IB1-YSL(St)Y

CHARACTERISTICS

Conductor cross-section	mm 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
Capacitance between conductors at 1 kHz, appr.	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
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 conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm ²	mm	kg/km	kg/km
0773 021	2 x 0,5	6.2	12.0	57
0773 022	3 x 0,5	6.5	16.8	64
0773 018	4 x 0,5	7.1	21.6	76
0773 023	5 x 0,5	7.7	26.4	90
0773 024	6 x 0,5	8.3	31.2	105
0773 025	7 x 0,5	8.3	36.0	108
0773 026	8 x 0,5	9.0	40.8	124
0773 027	10 x 0,5	10.7	50.4	156
0773 028	12 x 0,5	11.0	60.0	174
0773 030	14 x 0,5	11.6	69.6	195
0773 031	16 x 0,5	12.4	79.2	225
0773 032	18 x 0,5	13.0	88.8	249
0773 033	19 x 0,5	13.0	93.6	252
0773 034	21 x 0,5	13.7	103.2	279
0773 035	24 x 0,5	15.4	117.6	323
0773 036	27 x 0,5	15.7	132.0	350
0773 037	30 x 0,5	16.3	146.4	381
0773 038	36 x 0,5	17.5	175.2	450
0773 039	37 x 0,5	17.5	180.0	453
0773 040	40 x 0,5	18.2	194.4	489
0773 007	2 x 0,75	6.6	19.2	68
0773 013	3 x 0,75	6.9	26.4	77
0773 020	4 x 0,75	7.5	33.6	91
0773 041	5 x 0,75	8.2	40.8	109
0773 042	6 x 0,75	8.9	48.0	128
0773 043	7 x 0,75	8.9	55.2	133
0773 044	8 x 0,75	9.6	62.4	152
0773 045	10 x 0,75	11.4	76.8	190
0773 046	12 x 0,75	11.8	91.2	214
0773 047	14 x 0,75	12.6	105.6	246
0773 048	16 x 0,75	13.3	120.0	277
0773 049	18 x 0,75	14.0	134.4	308
0773 050	19 x 0,75	14.0	141.6	313
0773 051	21 x 0,75	14.9	156.0	352
0773 052	24 x 0,75	16.5	177.6	398
0773 053	27 x 0,75	16.9	199.2	435
0773 054	30 x 0,75	17.5	220.8	473
0773 055	34 x 0,75	19.2	249.6	567
0773 001	2 x 1,0	6.9	24.0	77
0773 017	3 x 1,0	7.3	33.6	90
0773 002	4 x 1,0	8.0	43.2	107
0773 029	5 x 1,0	8.7	52.8	129
0773 056	6 x 1,0	9.4	62.4	150
0773 057	7 x 1,0	9.4	72.0	157
0773 058	8 x 1,0	10.4	81.6	186
0773 059	10 x 1,0	12.4	100.8	233
0773 005	12 x 1,0	12.7	120.0	261
0773 060	14 x 1,0	13.4	139.2	294
0773 006	16 x 1,0	14.1	158.4	331
0773 061	18 x 1,0	15.1	177.6	377
0773 062	19 x 1,0	15.1	187.2	384
0773 063	21 x 1,0	15.8	206.4	423
0773 064	24 x 1,0	17.6	235.2	481
0773 065	27 x 1,0	18.0	264.0	526
0773 066	30 x 1,0	19.0	292.8	590
0773 010	2 x 1,5	7.5	36.0	96
0773 008	3 x 1,5	7.9	50.4	112
0773 012	4 x 1,5	8.6	64.8	134
0773 011	5 x 1,5	9.4	79.2	162
0773 067	6 x 1,5	10.5	93.6	197
0773 014	7 x 1,5	10.5	108.0	208
0773 068	8 x 1,5	11.3	122.4	238
0773 009	10 x 1,5	13.5	151.2	298
0773 015	12 x 1,5	13.9	180.0	337
0773 069	14 x 1,5	14.8	208.8	387
0773 070	16 x 1,5	15.6	237.6	436
0773 071	18 x 1,5	16.5	266.4	488
0773 072	19 x 1,5	16.5	280.8	498
0773 073	21 x 1,5	17.3	309.6	550

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Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm ²	mm	kg/km	kg/km
0773 074	24 x 1,5	19.6	352.8	642
0773 016	2 x 2,5	8.3	55.2	124
0773 075	3 x 2,5	8.8	79.2	150
0773 076	4 x 2,5	9.7	103.2	183
0773 077	5 x 2,5	10.8	127.2	227
0773 078	6 x 2,5	11.7	151.2	268

Product No.	Number of conductors x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm ²	mm	kg/km	kg/km
0773 079	7 x 2,5	11.7	175.2	284
0773 080	8 x 2,5	12.9	199.2	334
0773 081	10 x 2,5	15.3	247.2	416
0773 082	12 x 2,5	15.8	295.2	475
0773 083	14 x 2,5	16.7	343.2	539
0773 084	16 x 2,5	17.6	391.2	611
0773 085	18 x 2,5	19.0	439.2	701

Other cross-sections and conductor counts available on request.

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