

TECHNOKONTROL IB-YSL(St)Y-P**INTRINSICALLY SAFE CABLES**Operating voltage
300/500 VTest voltage
3 kVTemp. range
fixed installation
from -30°C to +80°CTemp. range
during installation
from -5°C to +70°CBending radius
10xDFlame retardant
PN-EN 60332-1-2Indoor
applicationOutdoor
application

UV resistance

Increased
oil resistanceElectromagnetic
compatibility**APPLICATIONS**

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

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

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

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

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

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

The cables are suitable for fixed indoor and outdoor installations.

CONSTRUCTION

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

AVAILABLE UPON REQUEST

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

TECHNOKONTROL IB-YSL(St)Y-P

CHARACTERISTICS

Conductor cross-section	mm 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 U₀/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
0793 020	2 x 2 x 0,5	8.6	21.6	99
0793 042	3 x 2 x 0,5	9.0	31.2	122
0793 031	4 x 2 x 0,5	9.7	40.8	139
0793 043	5 x 2 x 0,5	10.6	50.4	159
0793 044	6 x 2 x 0,5	11.4	60.0	184
0793 045	7 x 2 x 0,5	11.4	69.6	192
0793 040	8 x 2 x 0,5	12.1	79.2	210
0793 046	10 x 2 x 0,5	13.6	98.4	253
0793 047	12 x 2 x 0,5	14.1	117.6	282
0793 048	16 x 2 x 0,5	15.9	156.0	352
0793 049	18 x 2 x 0,5	16.7	175.2	386
0793 050	20 x 2 x 0,5	17.4	194.4	418
0793 051	25 x 2 x 0,5	19.1	242.4	504
0793 052	30 x 2 x 0,5	20.7	290.4	586
0793 053	40 x 2 x 0,5	23.8	386.4	767
0793 054	50 x 2 x 0,5	26.3	482.4	925
0793 019	2 x 2 x 0,75	9.2	33.6	123
0793 035	3 x 2 x 0,75	9.7	48.0	150
0793 029	4 x 2 x 0,75	10.5	62.4	172
0793 036	5 x 2 x 0,75	11.4	76.8	196
0793 016	6 x 2 x 0,75	12.3	91.2	229
0793 041	7 x 2 x 0,75	12.3	105.6	240
0793 027	8 x 2 x 0,75	13.1	120.0	264
0793 032	10 x 2 x 0,75	14.8	148.8	319
0793 002	12 x 2 x 0,75	15.4	177.6	359
0793 028	16 x 2 x 0,75	17.3	235.2	449
0793 037	20 x 2 x 0,75	19.0	292.8	537
0793 010	2 x 2 x 1,0	9.8	43.2	142
0793 003	3 x 2 x 1,0	10.3	62.4	176
0793 021	4 x 2 x 1,0	11.2	81.6	205

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm ²	mm	kg/km	kg/km
0793 024	5 x 2 x 1,0	12.3	100.8	237
0793 017	6 x 2 x 1,0	13.3	120.0	278
0793 006	7 x 2 x 1,0	13.3	139.2	293
0793 004	8 x 2 x 1,0	14.1	158.4	322
0793 005	10 x 2 x 1,0	15.9	196.8	390
0793 001	12 x 2 x 1,0	16.6	235.2	442
0793 012	16 x 2 x 1,0	18.8	312.0	559
0793 025	20 x 2 x 1,0	20.6	388.8	670
0793 008	2 x 2 x 1,5	10.8	64.8	177
0793 007	3 x 2 x 1,5	11.3	93.6	226
0793 055	4 x 2 x 1,5	12.4	122.4	266
0793 015	5 x 2 x 1,5	13.5	151.2	307
0793 056	6 x 2 x 1,5	14.7	180.0	362
0793 030	7 x 2 x 1,5	14.7	208.8	386
0793 057	8 x 2 x 1,5	15.6	237.6	426
0793 013	10 x 2 x 1,5	17.7	295.2	518
0793 018	12 x 2 x 1,5	18.5	352.8	591
0793 033	16 x 2 x 1,5	20.9	468.0	749
0793 058	20 x 2 x 1,5	23.5	583.2	926
0793 022	2 x 2 x 2,5	12.9	103.2	260
0793 034	3 x 2 x 2,5	13.6	151.2	336
0793 059	4 x 2 x 2,5	14.9	199.2	396
0793 060	5 x 2 x 2,5	16.4	247.2	462
0793 061	6 x 2 x 2,5	17.8	295.2	545
0793 062	7 x 2 x 2,5	17.8	343.2	584
0793 063	8 x 2 x 2,5	19.0	391.2	647
0793 064	10 x 2 x 2,5	21.7	487.2	792
0793 023	12 x 2 x 2,5	23.1	583.2	929
0793 065	16 x 2 x 2,5	26.2	775.2	1179
0793 066	20 x 2 x 2,5	29.3	967.2	1454

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