TECHNOKABEL®

ISO 9001:2008

TECHNOKONTROL IB1-YSLCY-P

INTRINSICALLY SAFE CABLES

APPLICATIONS

TECHNOKONTROL IB1-YSLCY-P are multipair overall shielded cables, intended for intrinsically safe circuits and explosive conditions zones, designed for operating voltage 0.6/1 kV.

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

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.

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,
- tinned copper wire braid shield of effective density coverage,
- cable screen wrapped in polyester tape,
- 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-YSLCYv-P - intrinsically safe cables with enhanced PVC sheath, suitable for direct earth burial.

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CE RoHS

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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	72.0	49.0	36.2	24.2	14.82
Mutual capacitance at 1 kHz, appr.	nF/km	120	120	120	130	140

Operating voltage Uo/U	0.6/1 kV
Voltage test	3.5 kV rms
Insulation resistance, minimum	20 MΩ·km
Inductance, approximate	0.7 mH/km

Operating temperature range for fixed installation for movable installation	 from - 30 to + 80°C 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
1414 005	2 x 2 x 0,5	10.7	39.0	129
1414 009	3 x 2 x 0,5	11.2	50.5	145
1414 010	4 x 2 x 0,5	12.2	62.0	173
1414 011	5 x 2 x 0,5	13.3	74.5	202
1414 012	6 x 2 x 0,5	14.3	86.6	231
1414 013	7 x 2 x 0,5	14.3	96.2	250
1414 014	10 x 2 x 0,5	17.2	139.7	342
1414 015	12 x 2 x 0,5	18.0	161.3	387
1414 016	14 x 2 x 0,5	19.2	184.3	436
1414 017	16 x 2 x 0,5	20.2	206.6	484
1414 018	18 x 2 x 0,5	21.2	228.8	532
1414 019	20 x 2 x 0,5	22.2	251.2	580
1414 020	24 x 2 x 0,5	24.6	318.4	720
1414 021	25 x 2 x 0,5	25.0	329.8	744
1414 022	30 x 2 x 0,5	27.2	412.4	888
1414 004	2 x 2 x 0,75	11.3	50.5	146
1414 023	3 x 2 x 0,75	11.9	66.1	168
1414 024	4 x 2 x 0,75	13.0	83.3	203
1414 025	5 x 2 x 0,75	14.1	100.5	238
1414 026	6 x 2 x 0,75	15.3	118.0	274
1414 027	7 x 2 x 0,75	15.3	132.4	298
1414 028	10 x 2 x 0,75	18.4	191.4	409
1414 029	12 x 2 x 0,75	19.2	222.7	465
1414 030	14 x 2 x 0,75	20.5	255.5	526
1414 003	16 x 2 x 0,75	21.7	288.0	587
1414 031	18 x 2 x 0,75	23.4	342.2	692
1414 032	20 x 2 x 0,75	24.4	375.3	753
1414 002	2 x 2 x 1,0	12.0	61.5	169
1414 033	3 x 2 x 1,0	12.6	82.2	194
1414 034	4 x 2 x 1,0	13.7	104.3	234

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
1414 035	5 x 2 x 1,0	15.0	126.9	278
1414 006	6 x 2 x 1,0	16.3	156.1	328
1414 036	7 x 2 x 1,0	16.3	175.3	359
1414 037	10 x 2 x 1,0	19.6	243.1	484
1414 007	12 x 2 x 1,0	20.5	284.3	553
1414 001	14 x 2 x 1,0	21.9	327.0	628
1414 038	16 x 2 x 1,0	23.7	391.5	747
1414 039	18 x 2 x 1,0	24.9	435.0	822
1414 040	20 x 2 x 1,0	26.0	478.0	895
1414 041	2 x 2 x 1,5	12.9	83.0	204
1414 042	3 x 2 x 1,5	13.6	113.6	236
1414 043	4 x 2 x 1,5	14.8	145.5	290
1414 044	5 x 2 x 1,5	16.3	184.9	352
1414 045	6 x 2 x 1,5	17.7	218.0	408
1414 046	7 x 2 x 1,5	17.7	246.8	450
1414 047	10 x 2 x 1,5	21.4	344.7	612
1414 048	12 x 2 x 1,5	22.3	405.1	703
1414 049	14 x 2 x 1,5	24.5	490.9	849
1414 050	16 x 2 x 1,5	25.9	554.4	946
1414 051	18 x 2 x 1,5	27.4	643.8	1073
1414 052	20 x 2 x 1,5	29.0	707.8	1198
1414 053	2 x 2 x 2,5	14.3	125.0	263
1414 054	3 x 2 x 2,5	15.1	175.1	313
1414 055	4 x 2 x 2,5	16.7	234.1	396
1414 056	5 x 2 x 2,5	18.3	287.1	474
1414 057	6 x 2 x 2,5	19.9	340.0	552
1414 058	7 x 2 x 2,5	19.9	388.0	614
1414 059	10 x 2 x 2,5	24.7	568.6	890
1414 060	12 x 2 x 2,5	25.8	669.1	1021

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

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