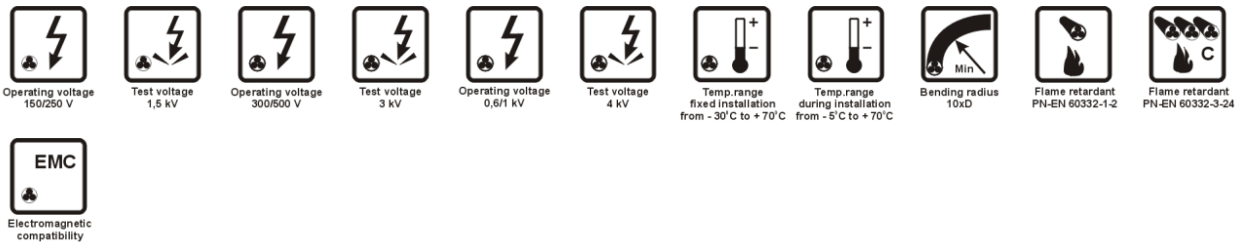
TECHNOKABEL®

ISO 9001:2008

YnHKGSLYżo-P; YnHKGSLYżo-T

MINING CONTROL CABLES



APPLICATIONS

YnHKGSLYżo-P are multipair, pair and overall shielded and **YnHKGSLYżo-T** are multitriple, triple and overall shielded, mining control cables intended for control, communication, measuring and monitoring systems in mines.

Cables can be applied in:
- opencast and underground mines, except explosive condition zones.
- underground mines in their non-methane and methane fields in areas of „a", „b" or „c" degree explosion hazard.
- underground mines in workings of class A or B coal dust explosion hazard.
- intrinsically safe circuits in opencast and underground mines in explosion hazardous areas.
- intrinsically safe circuits in underground mines in areas classified as „a", „b", or „c" degree explosion hazard.

Cables can not be used for power supplying in power engineering installations.

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

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificates No. 05/53/A1/2** and **05/53/A2/2** issued by **TI EMAG Institute.**

CONSTRUCTION

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), meeting requirements of class 5 per PN-EN 60228,
- PVC insulation, identification colour code:
  pairs – black and brown insulation and white pair number printed on it,
  triples – black, brown and blue insulation and white triple number printed on it,
- insulated conductors twisted into pairs or triples,
- tinned copper wire braid shield of coverage bigger than 70% on pairs or triples (bare copper wire braid available on request),
- shielded pairs or triples laid-up in layers into a cable core, green-yellow protective conductor located in the outer layer, cables are made of 2, 3, 4, 5, 7, 8, 10, 12, 14, 15, 16, 18, 19, 21, 24, 25, 28, 30, 40 and 50 pairs or triples,
- cable core wrapped in polyester tape,
- special (oxygen index bigger than 29%) PVC cable sheath, black (RAL 9005) or blue (RAL 5015 - for intrinsically safe circuits), other colours also available.

AVAILABLE UPON REQUEST

YnHKGSLXżo-P, YnHKGSLXżo-T - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 300/300 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

XnHKGSLXżo-P, XnHKGSLXżo-T - halogen free cables of reduced combustibility, sheathed with special halogen free material (Xn), applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive. Cables are designed for operating voltage 300/300 V.

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CE RoHS EMAG®

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CHARACTERISTICS

Conductor cross-section	mm²	0.5	0.75	1.0	1.5	2.5
DC conductor resistance at 20°C, maximum	Ω/km	78.0	52.0	39.0	26.6	16.0

Operating voltage Uo/U	V	300/300	300/500	600/1000
Voltage test	V rms	1500	3000	3500
Insulation resistance, minimum	MΩ·km	20	20	100

Inductance, approximate	0.7 mH/km	Minimum bending radius	10 x cable diameter
Conductor temperature limit		Cable combustibility	flame retardant
in work conditions	from - 30 to + 70°C	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. C)
in short-circuit	from - 5 to + 70°C	Reference standards	WT-TK-24

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.)
300/300 V	mm²	mm	kg/km	kg/km
1317 005	2 x 2 x 0,75 + 0,75	10.6	61	138
1317 006	4 x 2 x 0,75 + 0,75	12.1	114	215
1317 007	7 x 2 x 0,75 + 0,75	14.4	194	325
1317 008	12 x 2 x 0,75 + 0,75	18.5	327	530
1317 009	16 x 2 x 0,75 + 0,75	20.9	434	675
1317 010	18 x 2 x 0,75 + 0,75	21.9	488	750
1317 003	2 x 2 x 1 + 1	10.9	74	155
1317 011	4 x 2 x 1 + 1	12.5	138	245
1317 012	7 x 2 x 1 + 1	14.9	234	375
1317 013	12 x 2 x 1 + 1	19.2	394	605

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm²	mm	kg/km	kg/km
1317 014	16 x 2 x 1 + 1	21.6	522	775
1317 001	2 x 2 x 1,5 + 1,5	12.6	103	205
1317 015	4 x 2 x 1,5 + 1,5	14.6	192	325
1317 016	7 x 2 x 1,5 + 1,5	17.4	326	500
1317 017	12 x 2 x 1,5 + 1,5	22.6	549	820
1317 004	2 x 2 x 2,5 + 2,5	14.0	156	270
1317 018	4 x 2 x 2,5 + 2,5	16.2	288	435
1317 019	7 x 2 x 2,5 + 2,5	19.9	486	705
1317 020	12 x 2 x 2,5 + 2,5	25.7	816	1150

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm²	mm	kg/km	kg/km
1662 005	2 x 2 x 0,75 + 0,75	11.9	65	162
1662 006	4 x 2 x 0,75 + 0,75	13.8	123	255
1662 007	7 x 2 x 0,75 + 0,75	16.4	210	385
1662 008	12 x 2 x 0,75 + 0,75	21.2	355	625
1662 009	16 x 2 x 0,75 + 0,75	24.4	470	825
1662 010	18 x 2 x 0,75 + 0,75	25.6	528	910
1662 002	2 x 2 x 1 + 1	12.3	78	179
1662 011	4 x 2 x 1 + 1	14.2	147	285
1662 012	7 x 2 x 1 + 1	16.9	250	435
1662 013	12 x 2 x 1 + 1	21.9	422	705

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm²	mm	kg/km	kg/km
1662 014	16 x 2 x 1 + 1	25.2	559	930
1662 003	2 x 2 x 1,5 + 1,5	13.3	106	220
1662 001	4 x 2 x 1,5 + 1,5	15.4	197	345
1662 015	7 x 2 x 1,5 + 1,5	18.9	334	555
1662 016	12 x 2 x 1,5 + 1,5	24.3	563	900
1662 004	2 x 2 x 2,5 + 2,5	14.6	158	285
1662 017	4 x 2 x 2,5 + 2,5	17.0	293	460
1662 018	7 x 2 x 2,5 + 2,5	20.9	494	745
1662 019	12 x 2 x 2,5 + 2,5	27.0	830	1210

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm²	mm	kg/km	kg/km
1752 005	2 x 2 x 0,75 + 0,75	13.3	70	188
1752 006	4 x 2 x 0,75 + 0,75	15.4	132	295
1752 007	7 x 2 x 0,75 + 0,75	18.9	226	470
1752 008	12 x 2 x 0,75 + 0,75	24.3	383	755
1752 009	16 x 2 x 0,75 + 0,75	27.5	508	965
1752 019	18 x 2 x 0,75 + 0,75	29.3	570	1100
1752 001	2 x 2 x 1 + 1	13.6	83	205
1752 010	4 x 2 x 1 + 1	15.8	156	325
1752 011	7 x 2 x 1 + 1	19.4	266	520
1752 002	12 x 2 x 1 + 1	25.0	450	840

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm²	mm	kg/km	kg/km
1752 012	16 x 2 x 1 + 1	28.3	597	1080
1752 003	2 x 2 x 1,5 + 1,5	14.6	110	245
1752 013	4 x 2 x 1,5 + 1,5	17.0	206	390
1752 014	7 x 2 x 1,5 + 1,5	20.9	350	625
1752 015	12 x 2 x 1,5 + 1,5	27.0	590	1020
1752 004	2 x 2 x 2,5 + 2,5	16.0	163	315
1752 016	4 x 2 x 2,5 + 2,5	19.1	302	525
1752 017	7 x 2 x 2,5 + 2,5	22.9	510	820
1752 018	12 x 2 x 2,5 + 2,5	30.1	858	1370

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

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