

YnKGSlykonožo-P; YnKGSlykonožo-T

MINING CONTROL CABLES

Operating voltage
150/250 VTest voltage
1,5 kVOperating voltage
300/500 VTest voltage
3 kVOperating voltage
0,6/1 kVTest voltage
4 kVTemp. range
fixed installation
from - 30°C to + 70°CTemp. range
during installation
from - 5°C to + 70°CBending radius
10xDFlame retardant
PN-EN 60332-1-2Flame retardant
PN-EN 60332-3-24EMC
Electromagnetic
compatibility

APPLICATIONS

YnKGSlykonožo-P (multipair) and **YnKGSlykonožo-T** (multitriples) are 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” degree explosion hazard.
- underground mines in workings of class A 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.

Paired or tripled structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The overall shield protects the cables against external electromagnetic interferences and prevents emission of interferences produced in the cables.

Cables have positive **Technical Opinion No. 05/53** regarding application in underground mines and **Certificate No. 05/53/A1/2** 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,
- 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,
- tinned copper wire braid shield of coverage bigger than 70%,
- 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

YnKGSlykonožo-P, YnKGSlykonožo-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).

XnKGSlykonožo-P, XnKGSlykonožo-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.

YnKGSLYkonožo-P; YnKGSLYkonožo-T

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	78.0	52.0	39.0	26.6	16.0
Operating voltage U ₀ /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 in work conditions in short-circuit	from - 30 to + 70°C from - 5 to + 70°C	Cable combustibility	flame retardant
		Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2 PN-EN 60332-3-24, IEC 60332-3-24 (cat. 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	mm ²	mm	kg/km	kg/km
0732 003	2 x 2 x 0,75 + 0,75	10.2	57	132
0732 004	4 x 2 x 0,75 + 0,75	11.6	89	186
0732 005	7 x 2 x 0,75 + 0,75	13.7	143	275
0732 006	12 x 2 x 0,75 + 0,75	17.2	243	425
0732 007	16 x 2 x 0,75 + 0,75	19.7	310	550
0732 008	18 x 2 x 0,75 + 0,75	20.6	343	600
0732 009	2 x 2 x 1 + 1	10.5	70	147
0732 010	4 x 2 x 1 + 1	12.1	116	220
0732 011	7 x 2 x 1 + 1	14.2	181	315
0732 012	12 x 2 x 1 + 1	18.3	306	515

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/300 V	mm ²	mm	kg/km	kg/km
0732 013	16 x 2 x 1 + 1	20.5	393	645
0732 014	2 x 2 x 1,5 + 1,5	12.3	103	200
0732 015	4 x 2 x 1,5 + 1,5	14.2	167	295
0732 016	7 x 2 x 1,5 + 1,5	16.8	262	435
0732 001	12 x 2 x 1,5 + 1,5	21.7	441	710
0732 017	2 x 2 x 2,5 + 2,5	13.7	155	265
0732 018	4 x 2 x 2,5 + 2,5	15.8	258	405
0732 019	7 x 2 x 2,5 + 2,5	19.4	431	645
0732 020	12 x 2 x 2,5 + 2,5	25.0	716	1050

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm ²	mm	kg/km	kg/km
0442 011	2 x 2 x 0,75 + 0,75	11.6	61	155
0442 012	4 x 2 x 0,75 + 0,75	13.3	99	225
0442 013	7 x 2 x 0,75 + 0,75	15.7	150	325
0442 014	12 x 2 x 0,75 + 0,75	20.3	255	525
0442 015	16 x 2 x 0,75 + 0,75	22.8	324	650
0442 016	18 x 2 x 0,75 + 0,75	24.6	381	760
0442 001	2 x 2 x 1 + 1	12.0	78	176
0442 017	4 x 2 x 1 + 1	13.7	122	255
0442 018	7 x 2 x 1 + 1	16.2	188	370
0442 010	12 x 2 x 1 + 1	21.0	318	600

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm ²	mm	kg/km	kg/km
0442 019	16 x 2 x 1 + 1	24.2	429	795
0442 006	2 x 2 x 1,5 + 1,5	13.0	105	215
0442 002	4 x 2 x 1,5 + 1,5	15.0	169	315
0442 020	7 x 2 x 1,5 + 1,5	18.4	282	500
0442 005	12 x 2 x 1,5 + 1,5	23.0	447	755
0442 021	2 x 2 x 2,5 + 2,5	14.4	158	280
0442 022	4 x 2 x 2,5 + 2,5	16.6	261	425
0442 023	7 x 2 x 2,5 + 2,5	20.4	435	680
0442 024	12 x 2 x 2,5 + 2,5	26.3	724	1100

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm ²	mm	kg/km	kg/km
0884 004	2 x 2 x 0,75 + 0,75	13.0	69	185
0884 005	4 x 2 x 0,75 + 0,75	15.0	104	265
0884 006	7 x 2 x 0,75 + 0,75	18.4	174	415
0884 007	12 x 2 x 0,75 + 0,75	23.0	267	615
0884 008	16 x 2 x 0,75 + 0,75	26.5	363	820
0884 009	18 x 2 x 0,75 + 0,75	27.9	399	895
0884 010	2 x 2 x 1 + 1	13.4	82	205
0884 011	4 x 2 x 1 + 1	15.4	127	295
0884 012	7 x 2 x 1 + 1	18.9	213	460
0884 003	12 x 2 x 1 + 1	24.3	353	740

Product No.	Number of pairs (x 2) x conductor cross- section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm ²	mm	kg/km	kg/km
0884 013	16 x 2 x 1 + 1	27.3	446	920
0884 001	2 x 2 x 1,5 + 1,5	14.4	110	240
0884 014	4 x 2 x 1,5 + 1,5	16.6	175	355
0884 015	7 x 2 x 1,5 + 1,5	20.4	291	565
0884 002	12 x 2 x 1,5 + 1,5	26.3	484	905
0884 016	2 x 2 x 2,5 + 2,5	15.7	162	310
0884 017	4 x 2 x 2,5 + 2,5	18.9	284	505
0884 018	7 x 2 x 2,5 + 2,5	22.5	444	750
0884 019	12 x 2 x 2,5 + 2,5	29.4	739	1240

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