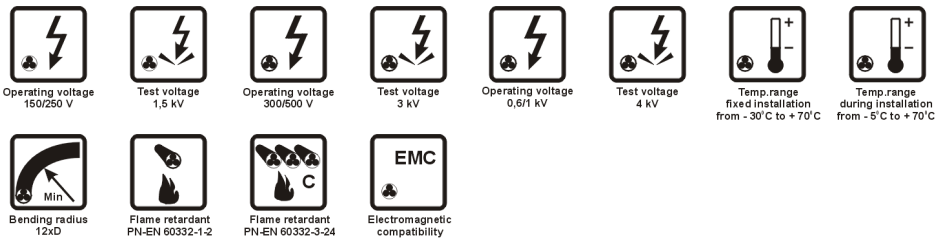
TECHNOKABEL®
Connecting since 1982

Łukasiewicz EMAG

RoHS COMPLIANT

CE

YnHKGSY



APPLICATIONS

YnHKGSY 150/250 V, YnHKGSY 300/500 V and **YnHKGSY 0,6/1 kV** are overall shielded mining control cables with individually shielded wires 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.

Cables have positive **Technical Opinion No. 7305/2022** regarding application in underground mines and **Certificates No. 7305/06/09/A1/2022** and **7305/06/09/A2/2022** issued by **TI EMAG Institute.**

CONSTRUCTION

- bare annealed copper conductors (tin-plated on request), meeting requirements of class 1 per PN-EN 60228,
- PVC insulation, colours of insulation:

Number of conductors	Colours of insulation	
	protective conductor	insulated conductors
3	green-yellow	black and blue
4	green-yellow	black, blue and brown
5	green-yellow	black, blue, brown and black
> 5	green-yellow	black and white conductor number printed on it

- tinned copper wire braid shield of coverage bigger than 70% on insulated conductors (bare copper wire braid available on request),
- shielded conductors laid-up in layers into a cable core, cables are made of 3, 4, 5, 7, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70 and 75 conductors,
- 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.

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AVAILABLE UPON REQUEST

YnHKGSX - polyethylene insulated cables (X) of low capacitance, designed to transmit signals over long distances. Cables are designed for operating voltage 150/250 V. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

YnHKGSXS - cross-linked polyethylene insulated cables (XS) of low capacitance and higher, up to 90°C, conductor temperature limit, designed to transmit signals over long distances. Cables are designed for operating voltages 300/500 V and 0,6/1 kV. Cable sheath made of special self-extinguishing and flame retardant PVC (Yn).

XnHKGSX - 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 150/250 V.

CHARACTERISTICS

Conductor cross-sectiony	mm^2	1.0	1.5	2.5	4
DC conductor resistance at 20°C, maximum	Ω/km	18.1	12.1	7.41	4.61

Operating voltage Uo/U	V	150/250	300/500	600/1000
Voltage test	V rms	1500	3000	4000
Insulation resistance, minimum	MΩ · km	20	20	100

Inductance, approximate	0.7 mH/km
Operating temperature range	
during operation	from - 30 to + 70°C
during installation	from - 5 to + 70°C
Minimum bending radius	12 x cable diameter
Cable combustibillity	flame retardant

Combustibillity tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-EN 60332-3-24, IEC 60332-3-24
Referance standards	WT-TK-25

The cable meets requirements of the low voltage direction 2014/35/EU

Product No.	Number of conductors x conductors cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm^2	mm	kg/km	kg/km
1738 001	2 x 1 + 1	7.6	38.5	96
1738 002	4 x 1 + 1	8.9	67.3	140
1738 003	6 x 1 + 1	9.5	96.2	165
1738 004	9 x 1 + 1	11.8	139.5	230
1738 005	13 x 1 + 1	12.7	197.2	299
1738 006	20 x 1 + 1	15.4	298.2	452
1738 007	2 x 1,5 + 1,5	8.6	53.9	126
1738 008	4 x 1,5 + 1,5	10.1	93.4	183
1738 009	6 x 1,5 + 1,5	10.9	133.0	219
1738 010	9 x 1,5 + 1,5	13.6	192.2	304

Product No.	Number of conductors x conductors cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
150/250 V	mm^2	mm	kg/km	kg/km
1738 011	13 x 1,5 + 1,5	14.7	271.3	400
1738 012	2 x 2,5 + 2,5	9.4	84.9	164
1738 013	4 x 2,5 + 2,5	11.1	145.7	244
1738 014	6 x 2,5 + 2,5	12.0	206.6	296
1738 015	9 x 2,5 + 2,5	15.1	297.9	415
1738 016	2 x 4 + 4	10.7	131.3	227
1738 017	4 x 4 + 4	12.7	224.2	343
1738 018	6 x 4 + 4	13.8	317.1	423
1738 019	9 x 4 + 4	17.5	456.5	595

Product No.	Number of conductors x conductors cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
300/500 V	mm^2	mm	kg/km	kg/km
1002 020	2 x 1 + 1	8.4	38.4	110
1002 021	4 x 1 + 1	9.8	67.3	157
1002 022	6 x 1 + 1	10.5	96.1	183
1002 023	9 x 1 + 1	13.1	139.4	254
1002 017	13 x 1 + 1	14.2	197.1	331
1002 024	20 x 1 + 1	17.3	298	505
1002 030	36 x 1 + 1	21.3	528.7	812
1002 004	2 x 1,5 + 1,5	8.9	53.9	131
1002 002	3 x 1,5 + 1,5	9.6	73.7	157
1002 007	4 x 1,5 + 1,5	10.4	93.4	189
1002 003	6 x 1,5 + 1,5	11.3	133.0	227
1002 001	9 x 1,5 + 1,5	14.1	192.2	315
1002 016	11 x 1,5 + 1,5	14.6	231.8	364
1002 009	13 x 1,5 + 1,5	15.3	271.3	415
1002 008	18 x 1,5 + 1,5	16.9	370.1	540
1002 010	20 x 1,5 + 1,5	19.1	409.6	654
1002 011	23 x 1,5 + 1,5	20.2	468.9	695
1002 006	29 x 1,5 + 1,5	21.3	587.4	840
1002 012	32 x 1,5 + 1,5	22.2	646.7	920
1002 018	36 x 1,5 + 1,5	23.0	725.8	1012
1002 014	2 x 2,5 + 2,5	9.7	84.9	170
1002 005	3 x 2,5 + 2,5	10.5	115.3	208
1002 025	4 x 2,5 + 2,5	11.5	145.8	253
1002 026	6 x 2,5 + 2,5	12.4	206.6	305
1002 019	9 x 2,5 + 2,5	15.6	298.0	427
1002 013	11 x 2,5 + 2,5	16.1	358.8	496
1002 027	2 x 4 + 4	10.7	131.3	227
1002 015	4 x 4 + 4	12.7	224.2	343
1002 028	6 x 4 + 4	13.8	317.1	423
1002 029	9 x 4 + 4	17.5	456.5	595

Product No.	Number of conductors x conductors cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
0,6/1 kV	mm^2	mm	kg/km	kg/km
0906 014	2 x 1 + 1	9.2	41.7	128
0906 007	3 x 1 + 1	10.0	57.7	153
0906 015	4 x 1 + 1	10.9	73.7	186
0906 019	6 x 1 + 1	11.7	105.8	216
0906 009	9 x 1 + 1	14.7	153.9	301
0906 020	13 x 1 + 1	16.0	218.0	393
0906 021	20 x 1 + 1	19.9	330.2	626
0906 008	23 x 1 + 1	21.1	378.3	658
0906 018	29 x 1 + 1	22.3	474.5	793
0906 022	2 x 1,5 + 1,5	9.8	56.1	151
0906 002	3 x 1,5 + 1,5	10.6	77.0	183
0906 004	4 x 1,5 + 1,5	11.5	97.8	218
0906 001	6 x 1,5 + 1,5	12.5	139.5	258
0906 003	9 x 1,5 + 1,5	15.7	202.1	359
0906 005	13 x 1,5 + 1,5	17.1	285.5	474
0906 006	18 x 1,5 + 1,5	19.3	389.7	636
0906 011	23 x 1,5 + 1,5	22.6	494.0	794
0906 023	47 x 1,5 + 1,5	30.3	994.4	1532
0906 024	2 x 2,5 + 2,5	10.6	88.2	192
0906 016	3 x 2,5 + 2,5	11.5	120.3	235
0906 025	4 x 2,5 + 2,5	12.5	152.4	284
0906 010	6 x 2,5 + 2,5	13.6	216.6	342
0906 017	9 x 2,5 + 2,5	17.2	312.9	479
0906 026	13 x 2,5 + 2,5	19.1	441.3	658
0906 027	2 x 4 + 4	12.4	134.5	272
0906 028	4 x 4 + 4	14.9	230.6	410
0906 029	6 x 4 + 4	16.2	326.8	495
0906 030	9 x 4 + 4	21.1	470.9	719

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