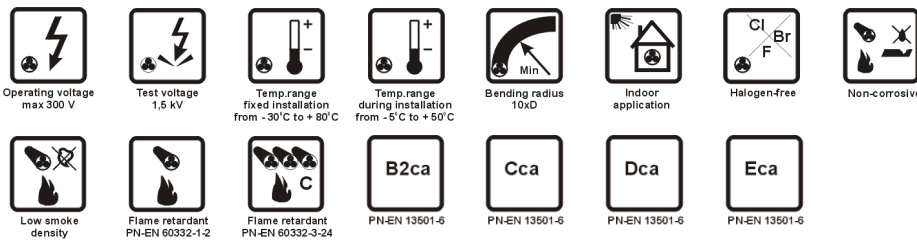


## TECHNOFLAME HTKSH



### APPLICATIONS

HTKSH halogen free cables are intended for interconnections between switching and transmission equipment, for analogue or digital data transmission in industrial electronics and control applications all in objects of sharp fire protection requirements, particularly in fire alarm and fire automatic control systems.

The cables are certified by **Scientific and Research Centre for Fire Protection - National Research Institute (Centrum Naukowo-Badawcze Ochrony Przeciwpowazarowej - PIB)** at Józefów.

Halogen free cables are applied in locations where, in case of fire, higher safety for human beings and expensive electronic equipment is required. The cables are flame retardant and their smoke emission is low, emitted fumes are non toxic and non corrosive.

The cables are suitable for fixed indoor installations.

### CONSTRUCTION

- bare annealed copper single wire round conductors,
- halogen free compound insulation - colours in accordance with PN-92/T-90321 standard,
- insulated conductors twisted into pairs or quads,
- pairs laid-up into a cable core,
- cable core wrapped in a polyester tape,
- red cable sheath made of halogen free compound type HM2 according to EN 50290-2-27 and VDE 0250 214 standard.

### CHARACTERISTICS

Cable type		HTKSH							
Conductor diameter	mm	0.5	0.6	0.8	1.0	1.4	1.5	1.8	2.3
DC loop resistance at 20°C, maximum	Ω/km	195.6	135.8	75.0	48.0	24.5	24.0	14.9	9.3
Mutual capacitance at 1 kHz	maximum	nF/km	120	120	120	120	120	120	120
	average		60	60	60	70	70	70	70



Operating voltage U <sub>0</sub> /U	150 V
Operating voltage peak value	max. 300 V
Voltage test	1500 V rms
Insulation resistance, minimum	500 MΩ/km
Inductance, approximate	0.7 mH/km
<b>Operating temperature range</b>	
during operation	from - 30 to + 80°C
during installation	from - 5 to + 50°C
Minimum bending radius	10 x cable diameter
Corrosivity of emitted gases per	PN-EN 60754-1, PN-EN 60754-2, IEC 60754-2
pH	>4.3
conductivity	<2.5 μS/mm
Smoke density	PN-EN 61034-2, IEC 61034-2
Light transmittance, minimum	80% for s1a

Cable combustibility	flame retardant
Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2, PN-3N 60332-3-24, IEC 60332-3-24
Reference standards	CNBOP-PIB- KOT-2019/0111-3701 edition 3, WT-TK-4
CPR – class reaction on fire (according to PN-EN 13501-6)	B2ca-s1a,d0,a1; Cca-s1a,d0,a1; Dca-s1a,d0,a1 ; Eca
KDWU declarations are available at	technokabel.com.pl

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

Product No.	Number of pairs x conductor diameter	Cable outer diameter (appr.)	Class reaction to fire	Copper index	Cable weight
				(appr.)	(appr.)
	mm	mm		kg/km	kg/km
0019 015	1 x 2 x 0,5	3.1	Eca	3.8	14
0019 009	2 x 2 x 0,5	4.3	Eca	7.5	23
0019 010	3 x 2 x 0,5	4.5	Eca	11.3	28
0019 012	4 x 2 x 0,5	5.1	Cca-s1a,d0,a1	15.1	44
0019 019	3 x 2 x 0,6	5.0	Cca-s1a,d0,a1	16.0	36
0019 020	4 x 2 x 0,6	5.3	Cca-s1a,d0,a1	21.7	42
0019 021	5 x 2 x 0,6	5.8	Cca-s1a,d0,a1	27.1	60
0019 022	6 x 2 x 0,6	6.3	Eca	32.6	59
0019 025	7 x 2 x 0,6	6.3	Eca	38.0	65
0019 023	8 x 2 x 0,6	6.7	Eca	43.4	73
0019 024	10 x 2 x 0,6	7.8	Eca	54.3	92
0019 008	1 x 2 x 0,8	4.0	Dca-s1a,d0,a1	9.7	24
0019 006	1 x 4 x 0,8	4.6	Eca	19.3	38
0019 002	2 x 2 x 0,8	5.9	B2ca-s1a,d0,a1	19.3	43
0019 005	3 x 2 x 0,8	6.2	B2ca-s1a,d0,a1	29.0	55
0019 007	4 x 2 x 0,8	6.8	Cca-s1a,d0,a1	38.6	69
0019 028	5 x 2 x 0,8	7.7	Cca-s1a,d0,a1	48.3	87
0019 029	6 x 2 x 0,8	8.4	Cca-s1a,d0,a1	57.9	102
0019 030	7 x 2 x 0,8	8.4	Cca-s1a,d0,a1	67.6	114
0019 031	8 x 2 x 0,8	8.9	Cca-s1a,d0,a1	77.2	128

Product No.	Number of pairs x conductor diameter	Cable outer diameter (appr.)	Class reaction to fire	Copper index	Cable weight
				(appr.)	(appr.)
	mm	mm		kg/km	kg/km
0019 013	10 x 2 x 0,8	10.1	Cca-s1a,d0,a1	96.5	156
0019 001	1 x 2 x 1,0	4.3	B2ca-s1a,d0,a1	15.1	30
0019 026	1 x 4 x 1,0	5.1	B2ca-s1a,d0,a1	30.2	51
0019 003	2 x 2 x 1,0	6.5	B2ca-s1a,d0,a1	30.2	55
0019 032	3 x 2 x 1,0	6.9	B2ca-s1a,d0,a1	45.2	74
0019 033	4 x 2 x 1,0	7.8	B2ca-s1a,d0,a1	60.3	97
0019 034	5 x 2 x 1,0	8.6	Cca-s1a,d0,a1	75.4	117
0019 035	6 x 2 x 1,0	9.4	Cca-s1a,d0,a1	90.5	138
0019 036	7 x 2 x 1,0	9.4	Cca-s1a,d0,a1	105.6	155
0019 037	8 x 2 x 1,0	10.0	Cca-s1a,d0,a1	120.6	175
0019 038	10 x 2 x 1,0	11.6	Cca-s1a,d0,a1	150.8	220
0019 039	12 x 2 x 1,0	12.1	Cca-s1a,d0,a1	181.0	257
0019 040	14 x 2 x 1,0	12.9	Cca-s1a,d0,a1	211.1	294
0019 011	1 x 2 x 1,4	5.1	B2ca-s1a,d0,a1	29.6	46
0019 041	1 x 4 x 1,4	5.9	B2ca-s1a,d0,a1	59.1	80
0019 042	2 x 2 x 1,4	8.0	B2ca-s1a,d0,a1	29.1	91
0019 043	3 x 2 x 1,4	8.5	B2ca-s1a,d0,a1	88.7	159
0019 044	4 x 2 x 1,4	9.4	B2ca-s1a,d0,a1	118.2	158
0019 045	5 x 2 x 1,4	10.3	B2ca-s1a,d0,a1	147.8	192
0019 004	1 x 2 x 1,5	5.7	B2ca-s1a,d0,a1	33.9	53

Product No.	Number of pairs x conductor diameter	Cable outer diameter (appr.)	Class reaction to fire	Copper index	Cable weight (appr.)
	mm	mm		kg/km	kg/km
0019 046	2 x 2 x 1,5	8.9	B2ca-s1a,d0,a1	67.9	105
0019 047	3 x 2 x 1,5	9.5	B2ca-s1a,d0,a1	101.8	143
0019 048	4 x 2 x 1,5	10.5	B2ca-s1a,d0,a1	135.7	182
0019 049	5 x 2 x 1,5	11.7	B2ca-s1a,d0,a1	169.6	227
0019 050	6 x 2 x 1,5	12.8	B2ca-s1a,d0,a1	203.6	268
0019 051	7 x 2 x 1,5	12.8	B2ca-s1a,d0,a1	237.5	304
0019 052	8 x 2 x 1,5	13.7	B2ca-s1a,d0,a1	271.4	344
0019 053	10 x 2 x 1,5	15.9	B2ca-s1a,d0,a1	339.3	432
0019 054	12 x 2 x 1,5	16.6	Cca-s1a,d0,a1	407.2	507
0019 055	14 x 2 x 1,5	17.8	Cca-s1a,d0,a1	475.0	584
0019 056	20 x 2 x 1,5	21.1	Cca-s1a,d0,a1	678.6	825
0019 057	25 x 2 x 1,5	23.8	Cca-s1a,d0,a1	848.2	1039

Product No.	Number of pairs x conductor diameter	Cable outer diameter (appr.)	Class reaction to fire	Copper index	Cable weight (appr.)
	mm	mm		kg/km	kg/km
0019 058	1 x 2 x 1,8	6.6	Eca	48.9	75
0019 060	1 x 4 x 1,8	7.3	B2ca-s1a,d0,a1	97.7	124
0019 059	2 x 2 x 1,8	10.0	Eca	97.7	140
0019 061	3 x 2 x 1,8	10.8	B2ca-s1a,d0,a1	146.6	198
0019 062	4 x 2 x 1,8	11.9	B2ca-s1a,d0,a1	195.4	254
0019 063	5 x 2 x 1,8	13.2	B2ca-s1a,d0,a1	244.3	311
0019 064	1 x 2 x 2,3	7.8	Eca	79.8	109
0019 065	1 x 4 x 2,3	9.1	B2ca-s1a,d0,a1	159.5	195
0019 066	2 x 2 x 2,3	12.4	Eca	159.5	218
0019 067	3 x 2 x 2,3	13.2	B2ca-s1a,d0,a1	239.3	304
0019 068	4 x 2 x 2,3	14.9	B2ca-s1a,d0,a1	319.1	400
0019 069	5 x 2 x 2,3	16.4	B2ca-s1a,d0,a1	398.9	490

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.