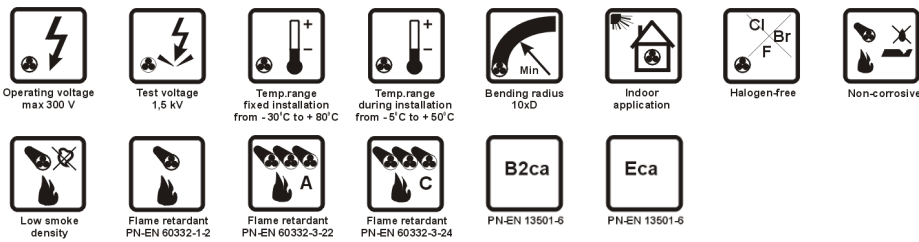


TECHNOFLAME HTKSHekw



APPLICATIONS

HTKSHekw 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 Przeciwpożarowej - 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.

Cable circuits are protected by an overall electrostatic shield against external electric field interferences. 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,
- overall electrostatic shield incorporating a plastic laminated metal foil and a tinned copper drain wire,
- red cable sheath made of halogen free compound type HM2 according to EN 50290-2-27 and VDE 0250 214 standard.

CHARACTERISTICS

| Cable type | | HTKSHekw | | | | | |
|-------------------------------------|---------|----------|-------|------|------|------|------|
| Conductor diameter | mm | 0.5 | 0.6 | 0.8 | 1.0 | 1.4 | 1.5 |
| DC loop resistance at 20°C, maximum | Ω/km | 195.6 | 135.8 | 75.0 | 48.0 | 24.5 | 24.0 |
| Mutual capacitance at 1 kHz | maximum | nF/km | 200 | 200 | 200 | 200 | 200 |
| | average | | 90 | 90 | 90 | 130 | 150 |



| | |
|-------------------------------------|---|
| Operating voltage U _o /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 |
| Operating temperature range | |
| 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-EN 60332-3-22, IEC 60332-3-22, 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; 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.) | |
|-------------|--------------------------------------|------------------------------|------------------------|--------------|----------------------|-------|
| | | | | | kg/km | kg/km |
| | mm | mm | | | kg/km | kg/km |
| 0533 034 | 1 x 2 x 0,5 | 3,3 | Eca | 5,0 | 17 | |
| 0533 008 | 2 x 2 x 0,5 | 4,5 | Eca | 8,7 | 26 | |
| 0533 009 | 3 x 2 x 0,5 | 4,7 | Eca | 12,5 | 32 | |
| 0533 029 | 4 x 2 x 0,5 | 5,1 | Eca | 16,3 | 38 | |
| 0533 020 | 5 x 2 x 0,5 | 5,6 | B2ca-s1a,d0,a1 | 20,1 | 44 | |
| 0533 037 | 6 x 2 x 0,5 | 6,0 | Eca | 23,8 | 50 | |
| 0533 038 | 7 x 2 x 0,5 | 6 | Eca | 27,6 | 55 | |
| 0533 039 | 8 x 2 x 0,5 | 6,4 | Eca | 31,4 | 61 | |
| 0533 040 | 10 x 2 x 0,5 | 7,2 | Eca | 38,9 | 74 | |
| 0533 041 | 1 x 2 x 0,6 | 3,5 | Eca | 6,6 | 19 | |
| 0533 021 | 2 x 2 x 0,6 | 5,1 | B2ca-s1a,d0,a1 | 12,1 | 34 | |
| 0533 022 | 3 x 2 x 0,6 | 5,1 | B2ca-s1a,d0,a1 | 17,5 | 38 | |
| 0533 023 | 4 x 2 x 0,6 | 5,5 | B2ca-s1a,d0,a1 | 22,9 | 46 | |
| 0533 025 | 5 x 2 x 0,6 | 6,0 | B2ca-s1a,d0,a1 | 28,3 | 54 | |
| 0533 024 | 6 x 2 x 0,6 | 6,5 | B2ca-s1a,d0,a1 | 33,8 | 62 | |
| 0533 030 | 7 x 2 x 0,6 | 6,5 | Eca | 39,2 | 68 | |
| 0533 026 | 8 x 2 x 0,6 | 6,9 | Eca | 44,6 | 77 | |
| 0533 027 | 10 x 2 x 0,6 | 8,0 | Eca | 55,5 | 97 | |
| 0533 028 | 12 x 2 x 0,6 | 8,3 | Eca | 66,4 | 111 | |
| 0533 002 | 1 x 2 x 0,8 | 4,2 | B2ca-s1a,d0,a1 | 10,9 | 27 | |

| Product No. | Number of pairs x conductor diameter | Cable outer diameter (appr.) | Class reaction to fire | Copper index | Cable weight (appr.) | |
|-------------|--------------------------------------|------------------------------|------------------------|--------------|----------------------|-------|
| | | | | | kg/km | kg/km |
| | mm | mm | | | kg/km | kg/km |
| 0533 003 | 1 x 4 x 0,8 | 5,1 | B2ca-s1a,d0,a1 | 20,5 | 45 | |
| 0533 010 | 2 x 2 x 0,8 | 6,1 | B2ca-s1a,d0,a1 | 20,5 | 46 | |
| 0533 004 | 3 x 2 x 0,8 | 6,4 | B2ca-s1a,d0,a1 | 30,2 | 59 | |
| 0533 006 | 4 x 2 x 0,8 | 7,0 | B2ca-s1a,d0,a1 | 39,8 | 74 | |
| 0533 005 | 5 x 2 x 0,8 | 7,9 | B2ca-s1a,d0,a1 | 49,5 | 92 | |
| 0533 017 | 6 x 2 x 0,8 | 8,6 | B2ca-s1a,d0,a1 | 59,1 | 107 | |
| 0533 019 | 7 x 2 x 0,8 | 8,6 | B2ca-s1a,d0,a1 | 68,8 | 119 | |
| 0533 013 | 8 x 2 x 0,8 | 9,1 | B2ca-s1a,d0,a1 | 78,4 | 133 | |
| 0533 012 | 10 x 2 x 0,8 | 10,3 | B2ca-s1a,d0,a1 | 97,7 | 162 | |
| 0533 042 | 12 x 2 x 0,8 | 10,4 | Eca | 107,4 | 174 | |
| 0533 018 | 14 x 2 x 0,8 | 11,8 | Eca | 136,3 | 220 | |
| 0533 035 | 20 x 2 x 0,8 | 17,4 | Eca | 194,2 | 441 | |
| 0533 001 | 1 x 2 x 1,0 | 5,1 | B2ca-s1a,d0,a1 | 16,3 | 40 | |
| 0533 031 | 1 x 4 x 1,0 | 5,2 | B2ca-s1a,d0,a1 | 31,4 | 53 | |
| 0533 007 | 2 x 2 x 1,0 | 6,7 | B2ca-s1a,d0,a1 | 31,4 | 60 | |
| 0533 043 | 3 x 2 x 1,0 | 7,1 | B2ca-s1a,d0,a1 | 46,4 | 78 | |
| 0533 014 | 4 x 2 x 1,0 | 8,0 | B2ca-s1a,d0,a1 | 61,5 | 102 | |
| 0533 044 | 5 x 2 x 1,0 | 8,8 | B2ca-s1a,d0,a1 | 76,6 | 123 | |
| 0533 045 | 6 x 2 x 1,0 | 9,6 | B2ca-s1a,d0,a1 | 91,7 | 143 | |
| 0533 046 | 7 x 2 x 1,0 | 9,6 | B2ca-s1a,d0,a1 | 106,8 | 161 | |

| 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 |
| 0533 047 | 8 x 2 x 1,0 | 10,2 | B2ca-s1a,d0,a1 | 121,8 | 181 |
| 0533 015 | 10 x 2 x 1,0 | 11,8 | B2ca-s1a,d0,a1 | 152,0 | 227 |
| 0533 048 | 12 x 2 x 1,0 | 12,3 | B2ca-s1a,d0,a1 | 182,2 | 263 |
| 0533 049 | 14 x 2 x 1,0 | 13,1 | Eca | 212,3 | 302 |
| 0533 011 | 1 x 2 x 1,4 | 5,3 | B2ca-s1a,d0,a1 | 30,8 | 50 |
| 0533 032 | 1 x 4 x 1,4 | 6,1 | B2ca-s1a,d0,a1 | 60,3 | 83 |
| 0533 016 | 1 x 2 x 1,5 | 5,9 | B2ca-s1a,d0,a1 | 35,1 | 57 |
| 0533 051 | 2 x 2 x 1,5 | 9,1 | B2ca-s1a,d0,a1 | 69,1 | 110 |
| 0533 052 | 3 x 2 x 1,5 | 9,7 | B2ca-s1a,d0,a1 | 103,0 | 149 |
| 0533 050 | 4 x 2 x 1,5 | 10,9 | B2ca-s1a,d0,a1 | 136,9 | 194 |

| 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 |
| 0533 053 | 5 x 2 x 1,5 | 11,9 | B2ca-s1a,d0,a1 | 170,9 | 235 |
| 0533 054 | 6 x 2 x 1,5 | 13,0 | B2ca-s1a,d0,a1 | 204,8 | 276 |
| 0533 055 | 7 x 2 x 1,5 | 13,0 | B2ca-s1a,d0,a1 | 238,7 | 312 |
| 0533 056 | 8 x 2 x 1,5 | 14,1 | B2ca-s1a,d0,a1 | 272,6 | 359 |
| 0533 057 | 10 x 2 x 1,5 | 16,1 | B2ca-s1a,d0,a1 | 340,5 | 442 |
| 0533 058 | 12 x 2 x 1,5 | 16,8 | B2ca-s1a,d0,a1 | 408,4 | 517 |
| 0533 059 | 14 x 2 x 1,5 | 18,2 | B2ca-s1a,d0,a1 | 476,2 | 604 |
| 0533 060 | 20 x 2 x 1,5 | 21,3 | B2ca-s1a,d0,a1 | 679,8 | 837 |
| 0533 061 | 25 x 2 x 1,5 | 24,0 | B2ca-s1a,d0,a1 | 849,4 | 1053 |

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