

## Halogen-free telecommunication cable



### Technical data:

**Temperature range:**  
 Fixed installation: -25°C up to 70°C  
 Min. installation temp: -5°C  
**Operating voltage:** 150V  
**Test voltage:**  
 AC 1500 V  
 DC 2250 V  
**Insulation resistance (minimum):**  
 500MΩ\*km  
**Pair loop resistance at 20°C (maximum):**  
 0,8mm - 75 Ω/km  
 0,5mm - 195,6 Ω/km  
 1,0 mm - 48 Ω/km  
**Mutual capacitance of pair at 1kHz (maximum):** 150nF/km  
**Min. bending radius:** 10xØ

### Cable characteristics:

- fire resistant
- halogen-free
- flame retardant
- no corrosive gases (acidity pH ≥ 4,3; conductivity < 10 µS/mm)
- low smoke emission (light transmittance over 60%)
- low fire load (calorific value)

### Tests:

Flame propagation test for a single insulated cable: EN 60332-1, IEC 60332-1, VDE 0482-332-1  
 Flame propagation test for vertically-mounted bunched cables: EN 60332-3-24, IEC 60332-3-24, VDE 0482-332-3-24  
 Test on corrosive gases emitted during burning: EN 602754-2, IEC 602754-2, VDE 0482-754-2  
 Smoke density emission during burning: EN 61034-2, IEC 61034-2, VDE 0482-1034-2

### Construction:

**Cores:** solid copper conductor class 1, acc. to PN-EN 60228  
**Insulation:** halogen-free compound  
**Core colors:** acc. to PN -92/T-90321  
**Core arrangement:** core twisted in pairs, pairs twisted together  
**Wrapping:** polyester tape  
**Screen:** aluminium backed polyester type with tinned copper drain wire 0,4mm dia  
**Outer sheath:** halogen-free polymer compound  
**Outer sheath color:** red

### Application:

Halogen-free special cables for interconnecting station equipment, telephone and teletransmission equipment and data transmission devices by means of analogue and digital signals in control and signalling fire protections systems. The cables are used primarily as transmission and power supply lines for line equipment (sensors, linear modules) in supervised lines of fire signalling systems and autonomous fire extinguisher and smoke removal control systems. The cables are incorporated in systems used at the „0“ moment of fire origination (the moment of fire detection by the central detector). The cables can be used for transmitting trigger signals or conditions to auxiliary devices, which are activated by the central fire signalling mechanism upon detection of a fire (e.g. disconnection of a residential ventilation system, downward movement of passenger lifts, switching off of the power supply of building). Static screen protects the cable against interferences of external magnetic fields.

The cables are CPR classification acc. to **EN 50575**.

Cat. no	n x mm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TN0346	1x2x0,5	3,6	21	5,0
TN0347	1x4x0,5	4,0	33	8,7
TN0348	2x2x0,5	4,7	35	8,7
TN0349	3x2x0,5	5,1	47	12,5
TN0350	4x2x0,5	5,7	59	16,3
TN0351	5x2x0,5	6,2	71	20,0
TN0352	7x2x0,5	6,9	97	27,6
TN0353	10x2x0,5	7,9	132	38,9
TN0354	12x2x0,5	8,5	155	46,4
TN0355	14x2x0,5	9,1	178	54,0
TN0300	1x2x0,8	4,6	26	10,9
TN0301	1x4x0,8	5,2	40	20,5
TN0302	2x2x0,8	6,3	44	20,5
TN0303	3x2x0,8	7,1	61	30,1
TN0304	4x2x0,8	8,0	77	39,8
TN0305	5x2x0,8	8,7	92	49,4

Cat. no	n x mm	Outer diameter [mm]	Approximate cable weight [kg/km]	Cu [kg/km]
TN0312	7x2x0,8	9,8	124	68,7
TN0309	10x2x0,8	11,5	173	97,7
TN0356	12x2x0,8	12,4	201	117,0
TN0357	14x2x0,8	13,3	230	136,3
TN0358	21x2x0,8	14,5	327	203,8
TN0359	30x2x0,8	16,7	450	290,6
TN0360	42x2x0,8	19,6	629	406,3
TN0306	1x2x1,0	5,6	38	16,3
TN0313	1x4x1,0	6,4	60	31,3
TN0307	2x2x1,0	7,7	65	31,3
TN0311	3x2x1,0	8,7	91	46,4
TN0314	4x2x1,0	9,9	116	61,5
TN0315	5x2x1,0	10,8	139	76,6
TN0316	7x2x1,0	12,1	187	106,7
TN0317	10x2x1,0	14,2	261	151,9
TN0361	12x2x1,0	15,4	306	182,1
TN0362	14x2x1,0	16,6	351	212,2

Cable Factory BITNER reserve the right to modify specifications without prior notification  
 Note: On customer's request other cross sections or number of cores can be produced