UNITRONIC® TRAIN

Bus cables - MVB and WTB - Electron beam cross-linked for high requirements in railway applications

Info

Small outer diameters for maximum saving of space and weight
Extremely low attenuation ≤ 5 MHz

- Rail
- Good chemical resistance
- Flame-retardant
- Halogen-free
- Low weight
- Oil-resistant
- Interference signals
- Temperature-resistant
- UV-resistant

Benefits

Good chemical resistance please see Appendix T1
Resistant to mechanical influences in harsh environmental conditions
Extended temperature range

Last Update (01.12.2021)

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You can find the current technical data in the corresponding data sheet.
PN 0456 / 02_03.16

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Reduced flame spreading increases the protection against damage to persons and property in the event of a fire
EMC-optimised design

Application range

The communication systems WTB (wire train bus) and MVB (multifunction vehicle bus) make up the so-called TCN (train communication network)
UNITRONIC® TRAIN bus cables are designed for use in TCN acc. IEC 61375
MVB according IEC 61375-3-1
WTB according IEC 61375-2-1
For use in railway vehicles and buses, for fixed installations and applications where limited movement may occur
Also applicable within oily environments and areas with increased ambient temperature

Product features

Fire behaviour according to EN/IEC:
- Halogen-free acc. to EN 60754-1
- No corrosive gases acc. to EN 60754-2
- No fluorine acc. to EN 60684-2
- No toxic gases acc. to EN 50305
- Low smoke density acc. to EN 61034-2
- Flame-retardant acc. to EN 60332-1-2
- No fl ame propagation acc. to EN 60332-3-25

Fire behaviour according to NF:
- Toxicity of gases acc. to NF X 70-100
- Low smoke density acc. to NF X 10-702
- No flame propagation acc. to NF C 32-070,

Cat. C1 and C2
Chemical properties:
- Oil resistant acc. to EN 50264-1
- Fuel resistant acc. to EN 50264-1
- Acid resistant acc. to EN 50264-1
- Alkali resistant acc. to EN 50264-1
- Ozone resistant acc. to EN 50264-3-2

Norm references / Approvals

EN 45545-2 HL1, HL2, HL3
EN 50264-1

Product Make-up

Stranded tinned 19-wire conductor
Core insulation: Based on Polyolefin
Outer sheath: electron beam cross-linked polymer-compound EM 104
Outer sheath colour: Black

Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
Classification ETIM 6:	ETIM 6.0 Class-ID: EC000830 ETIM 6.0 Class-Description: Data cable
Peak operating voltage:	(not for power applications) 125 V
Minimum bending radius:	Flexing: 10 x outer diameter Fixed installation: 6 x outer diameter

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Test voltage:	Core/core: 1000 V Core/screen: 1000 V
Characteristic impedance:	120 ohm (±10%)
Temperature range:	Fixed installation: -45 °C to +90 °C Occasional flexing: -35 °C up to +90 °C

Note
Photographs and graphics are not to scale and do not represent detailed images of the respective products.
Prices are net prices without VAT and surcharges. Sale to business customers only.

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Article number	Article designation	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)
Cables for MVB				
2173000	UNITRONIC® TRAIN MVB 1x2x0,5	1x2x0,5	7.6	29
2173001	UNITRONIC® TRAIN MVB 1x2x0,5+1x0,5	1x2x0,5+1x0,5	7.6	34
2173002	UNITRONIC® TRAIN MVB 2x2x0,5	2x2x0,5	8.3	40
2173003	UNITRONIC® TRAIN MVB 2x2x0,5+4x0,25	2x2x0,5+4x0,25	8.3	50
Cables for WTB				
2173004	UNITRONIC® TRAIN WTB 1x2x0,75	1x2x0,75	8.4	41

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