



UNITRONIC® TRAIN

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

i Info

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



Benefits

- Good chemical resistance
- Resistant to mechanical influences in harsh environmental conditions
- Extended temperature range
- Reduced flame spreading increase 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 flame 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 5/6
ETIM 5.0/6.0 Class-ID: EC000830
ETIM 5.0/6.0 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

Test voltage
Core/core: 1000 V
Core/screen: 1000 V

Characteristic impedance
120 Ω ($\pm 10\%$)

Temperature range
Fixed installation: -45°C to +90°C
Occasional flexing: -35°C up to +90°C

Article number	Article designation	Number of cores and mm ² per conductor	Outer diameter [mm]	Copper index (kg/km)
Cables for MVB				
2173000	UNITRONIC® TRAIN MVB 1x2x0,5	1x2x0,5	7.4	
2173001	UNITRONIC® TRAIN MVB 1x2x0,5+1x0,5	1x2x0,5+1x0,5	7.4	34
2173002	UNITRONIC® TRAIN MVB 2x2x0,5	2x2x0,5	8.1	
2173003	UNITRONIC® TRAIN MVB 2x2x0,5+4x0,25	2x2x0,5+4x0,25	8.1	
Cables for WTB				
2173004	UNITRONIC® TRAIN WTB 1x2x0,75	1x2x0,75	8.4	

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