

Fire-resistant multi-core railway cable according to EN 50264-3-2 type MM and EN 50200

UNIRAIL S 50264-3-2 600V MM FR - Fire-resistant control cable for railways/rolling stock 120 min. circuit integrity according to EN 50200 EN 45545 HL3

### Info

Meets EN 50264-3-2 type MM and EN 45545-2 Circuit integrity according to EN 50200 up to 120 minutes Highly oil- and fuel-resistant







Rail



Good chemical resistance



Flame-retardant



Halogen-free



Cold-resistant



Mechanical resistance



Oil-resistant



Temperature-resistant

### **Benefits**

For protection against personal injury and damage to property.

Insulation integrity for up to 120 minutes under the effect of fire (classification PH120 according to EN 50200). Guarantees

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You can find the current technical data in the corresponding data sheet.
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functional integrity and the power supply in the event of an emergency.

Compliant with standards for use in rail vehicles: fire safety and cable design requirements according to DIN EN 50264-3-2, type MM; fire behaviour in accordance with DIN EN 45545-2, hazard level HL3.

The cross-linked insulation and sheath materials promote longevity at high temperatures or with a high current load, and provide high dielectric strength.

Halogen-free and highly flame-retardant materials reduce the risk of fire propagation, high smoke density and toxic fumes in case of fire

### Application range

For wiring safety-related components in railway vehicles.

Typical application areas are emergency power circuits for alarm, lighting and communication purposes, which must maintain their function for a certain period of time in the event of a fire.

For use in railway vehicles, for fixed installations and applications where limited movement may occur

Can be used in dry, damp and especially in harsh and oily environments.

The cross-linked polymer compound is highly resistant to oils, fuels, alkalis and acids.

### **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 60332-3-24 / EN 60332-3-25 /

EN 50305

Chemical properties:

- Oil resistant acc. to EN 50264-3-2
- Fuel resistant acc. to EN 50264-3-2
- Acid resistant acc. to EN 50264-3-2
- Alkali resistant acc. to EN 50264-3-2
- Ozone resistant acc. to EN 50264-3-2/

EN 50305)

Current rating according to EN 50355, appendix A

### Norm references / Approvals

EN 50264-3-2 type MM DIN EN 45545-2 (HL3) EN 50200

### **Product Make-up**

Tinned-copper strand, fine-wire

Mica tape wrapping

Insulation: Cross-linked polymer compound El 109 Colour of insulation: Black with white numbers

Wrapping: Non-hygroscopic tape

Outer sheath: Cross-linked polymer-compound EM 104

Color of the outer sheath: Red

### **Technical Data**

Classification ETIM 5:

ETIM 5.0 Class-ID: EC000104

ETIM 5.0 Class-Description: Control cable

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Classification ETIM 6: ETIM 6.0 Class-ID: EC000104

ETIM 6.0 Class-Description: Control cable

Core identification code: Black with white numbers

Conductor stranding: Fine-wired/ Finely stranded according to IEC 60228, conductor

class 5

Minimum bending radius: Fixed installation: 4 x outer diameter

Nominal voltage: U0/U AC 0.6/1 kV

 $U_m$  AC 1.2 kV  $V_0$  DC 0.9 kV

Test voltage: 3,5 kV AC; 8,4 kV DC

Protective conductor: G = with GN-YE protective conductor

X = without protective conductor

Temperature range: Fixed installation: -40°C to +90°C

### Note

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).

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.



Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)
15382170	2 X 1.5	8.4	28.8
15382171	3 X 1.5	8.9	43.2
15382172	4 X 1.5	9.9	57.6
15382173	2 X 2.5	9.4	48
15382174	3 X 2.5	10.1	72
15382175	4 X 2.5	11.1	96
15382176	2 X 4.0	10.4	76.8