

Railway Cables

Thin-Walled Single, Multi-Core and Multi-Pair, Railway Signal & Control Cables with Special Fire Performance for Railway Rolling Stock (EN -50306-1,2,3,4)

Ideal for modern railway applications where space, weight, safety and EMC performance are critical.

Application

- They are designed for fixed & protected internal & external wiring in all railway vehicles, from locomotives to trams. Rated for occasional thermal stress, with a continuous operational life equivalent to temperatures of 105° C (Optional: 120° C). Their compact size and flexibility are perfect for confined spaces

These cables are crucial for power transmission, controlling & various low voltage signal transmission in various Rolling stock applications (Locomotives, Metros, EMU, MEMU, Control circuits)

Their halogen-free, cross linked construction ensures superior fire safety, providing essential protection for passengers and crew

Advantages

- Resists mechanical stress, chemicals and extreme temperatures

Halogen-free, cross-linked construction with good flexibility and durability compact and light weight design, very good EMC compatibility for screened cable

Thin-wall design and low bending radius allow for space-saving installations. Robust build guarantees a long service life

EN 50306 Thin-Wall Railway Rolling Stock Cables

EN 50306 Cables offer diverse constructions (single / multi core, screened / unscreened, multipair), operate reliably from -40° C to + 105° C (Optional 120° C) They are rated for 300 V to earth.

Available in 0.50 mm² to 2.5 mm² cross- sections, they feature electron-beam cross linked, halogen - free materials ensuring superior fire performance (low smoke, non-toxic, non-corrosive gases) and robust resistance to oils, fuels, ozone and UV, all in a compact, durable, thin- wall design.

Key features

- IEC 60332-1-2 – Flame Retardant
- IEC 60754-1/2 – Corrosivity of Combustion of gases
- IEC 61034-2 – Low Smoke Emission
- EN 45545-2 HL-2/HL-3– Fire behavior of the Cable

Construction Details:

Component	50306-2	50306-3	50306-4
Size (sq.mm)	0.5 sq.mm to 2.5 sq.mm	0.5 sq.mm to 2.5 sq.mm	0.5 sq.mm to 2.5 sq.mm
Operating temperature	- 40° C to +105° C /+ 120° C		
Cable Types	Single Core	Single Core & Multi Core Cables	Multi Core & Multi Pair Cables
Screening	Unscreened	Screened	Unscreened / Screened
Flexible Tinned Coated Annealed Copper Conductor (120° C) (Class 5)	✓	✓	✓
Separator Tape	✗	(Optional)	(Optional)
Insulation (as per 3.1 of EN 50306-1)	✓	✓	✓
Laying up & Fillers	✗	✓	✓
Metallic Screening	✗	✓	✓
Separator Tape	✗	(Optional)	(Optional)
Sheath (Type S1 or S2 as per 3.2 of EN 50306-1)	✗	✓	✓
Test Voltage	2 KV for 5 min		

✓ = Included | ✗ = Not Included



Fire retardant



Good Chemical Resistance



Good Resistance to UV, humidity and ozone



High Flexible



Halogen Free



Low Corrosivity of combustion gases



Low toxicity



Operating temp



Screened Versions

