Category 5E Data Cables

№ Applications

The cables are designed for permanently protected installation, inside and outside railway rolling stock, buses and other vehicles to connect fixed parts. Ethernet based networks as: infotainment, multimedia, passenger information system etc.



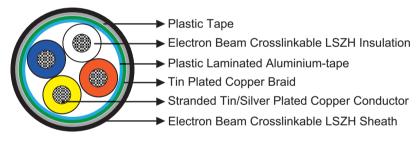
Standards

- DIN 5510-2
- EN 50228-2-2
- BS 6853
- EN 50306-3 par 4.8/4.9/4.10

→ Construction

For 4×0.5mm², 4×22AWG cables:

 Conductors: Stranded tin plated copper conductor (for 0.5mm² cables) or stranded silver plated copper conductor (for 22AWG cables) according to IEC 60228 class 5.



- Insulation: Electron beam crosslinkable compound.
- Cable Element: Individual conductor stranded together.
- EMC Screen1: Plastic laminated aluminium-tape.
- EMC Screen2: Tinned copper braid.
- Separator (s): Plastic tape.
- Outer Sheath: Electron beam crosslinkable compound.

For 4×2×22AWG cables:

• Center: PE filler.

- 4 pairs 2×22AWG: Stranded tinned copper conductor according to IEC 60228 class 5.
- Insulation: Electron beam crosslinkable compound.
- EMC Screen1: Plastic laminated aluminium-tape.
- EMC Screen2: Tinned copper braid.
- Separator(s): Plastic tape.
- Outer Sheath: Electron beam crosslinkable compound.

■ Electrical Characteristics at 20°C

| Nominal Cross Section | mm² | 0.5 | - |
|----------------------------------|------|---------|---------|
| AWG | | - | 22 |
| Nominal Conductor Resistance | Ω/km | 40.1 | 54.4 |
| Maximum Resistance Unbalance | Ω/km | 1.1 | 1.1 |
| Maximum Capacitance | | | |
| Core to Core | pF/m | 65 | 65 |
| Core to Screen | pF/m | 100 | 100 |
| Characteristic Impedance @100MHz | Ω | 100+/-5 | 100+/-5 |
| Transfer Impedance f≤30MHz | mΩ/m | 200 | 200 |
| Nominal Voltage Rating | V | 300 | 300 |

№ Mechanical and Thermal Properties

• Minimum Bending Radius: 6×OD

• Temperature Range: -40°C to +90°C

■ Dimensions and Weight

| Cable Code | No. of cores& Nominal Conductor Cross Sectional Area No.×mm² | Nominal Diameter of Strands No/mm | Nominal Sheath Thickness mm | Nominal Overall Diameter mm | Nominal Weight kg/km |
|-----------------|--|--|--------------------------------------|--------------------------------------|----------------------------|
| RD-Cat5E-4C0.5S | 4×0.5 | 19/0.18 | 1.2 | 8.3 | 102 |
| RD-Cat5E-4C22A | 4×22AWG | 19/0.16 | 1.2 | 7.25 | 81 |
| RD-Cat5E-4P22A | 4×2×22AWG | 19/0.16 | 1.2 | 12.6 | 174 |



Impact Resistant



Highly Flexible



UV Resistant



Weather Resistant



Oil Resistant



Flame Retardant NF C32-070-2.1(C2) IEC 60332-1/EN 50265-2-1



Fire Retardant NF C32-070-2.2(C1) IEC 60332-3/EN50266





Zero Halogen IEC 60754-1/NF C20-454



Low Smoke Emission IEC 61034/NFC20-902 EN 50268/NF C32-073



EN 50267-2-2/NF C32-074 IEC 60754-2/NF C20-453



