

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.



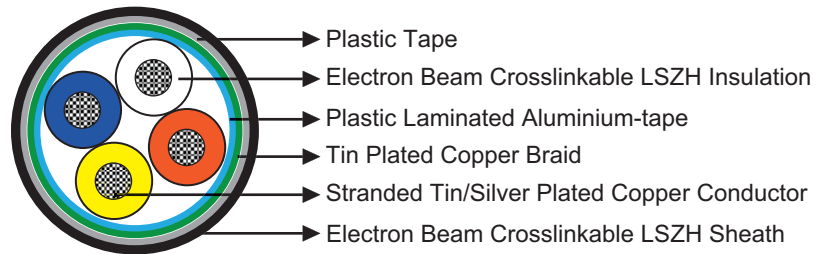
Standards

- 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	mm ²	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

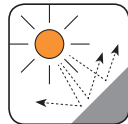
Cable Code	No. of cores & Nominal Conductor Cross Sectional Area No. × mm ²	Nominal Diameter of Strands No./mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
RD-Cat5E-4C0.5S	4×0.5	19/0.18	1.2	8.3	102
RD-Cat5E-4C22A	4×22AWG	19/0.16	1.2	7.25	81
RD-Cat5E-4P22A	4×2×22AWG	19/0.16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



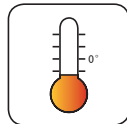
Impact Resistant



Highly Flexible



UV Resistant



Weather Resistant



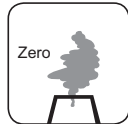
Oil Resistant



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
EN 50267-2-1



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



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



Low Toxicity

