

## 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.



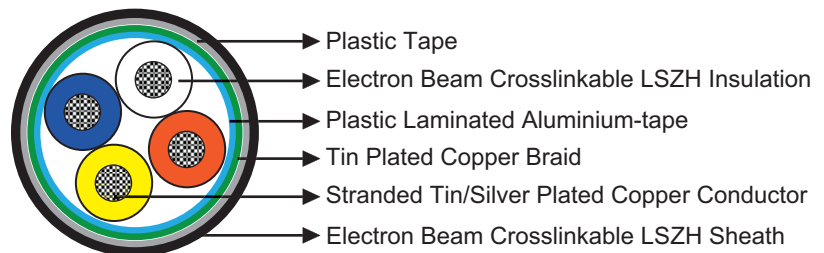
### Standards

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

### Construction

#### For 4×0.5mm<sup>2</sup>, 4×22AWG cables:

- Conductors: Stranded tin plated copper conductor (for 0.5mm<sup>2</sup> 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 <sup>2</sup>	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

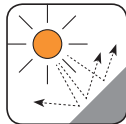
Cable Code	No. of cores & Nominal Conductor Cross Sectional Area No. × mm <sup>2</sup>	Nominal Diameter of Strands No./mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
RD-Cat5E-4C0.5S	4×0.5	19/0.18	1.2	8.3	102
RD-Cat5E-4C22A	4×22AWG	19/0.16	1.2	7.25	81
RD-Cat5E-4P22A	4×2×22AWG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



Impact Resistant



Highly Flexible



UV Resistant



Weather Resistant



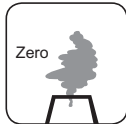
Oil Resistant



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

