



Caledonian

Railway Cables

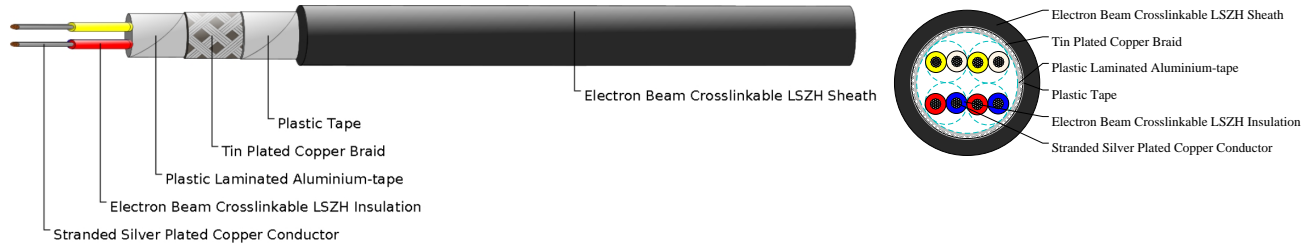
www.caledonian-cables.com

marketing@caledonian-cables.com

Firerail Databus Cables For Railway Applications

Category 5E Databus Cables

FRA-Cat5E-4P22A



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

VOLTAGE RATING

300V

CABLE CONSTRUCTION

Conductors: Stranded silver plated copper conductor 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: Tin plated copper braid.

Separator(s): Plastic tape.

Outer Sheath: Electron beam crosslinkable compound.

PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 6xOD

Temperature Range: -40°C to +90°C

Electrical Properties

Electrical Characteristics at 20°C:

Nominal Cross Section: 22 AWG

Nominal Conductor Resistance: 54.4 Ω/km



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Maximum Resistance Unbalance: 1.1 Ω/km

Maximum Capacitance:

core to core: 65 pF/m

Core to screen: 100 pF/m

Characteristic Impedance @ 100MHz: 100 +/- 5 Ω

Transfer Impedance f ≤ 30MHz: 200 mΩ/m

Nominal Voltage Rating V 300

DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	No./Nominal Diameter of Strands	Nominal Sheath Thickness	Nom. Overall Diameter	Approx. Weight
No. × mm ²	no./mm	mm	mm	kg/km
4 x 2 x 22AWG	19/0.16	1.2	12.6	174



Fire Retardant
NF C20709-3-2(C1)
IEC60332-3-24/EN50266-2-4



Flame Retardant
NF C32-0709-3-1(C2)
IEC60332-1-2/EN50265-2-1



Highly Flexible



Impact Resistant



Low Corrosivity
IEC60754-2/EN50367-2-2/3
NF C32-074/NF C20-453



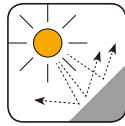
Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902



Low Toxicity



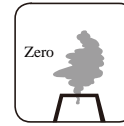
Oil Resistant



UV Resistant



Water Resistant



Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454