



**Caledonian**

Railway Cables

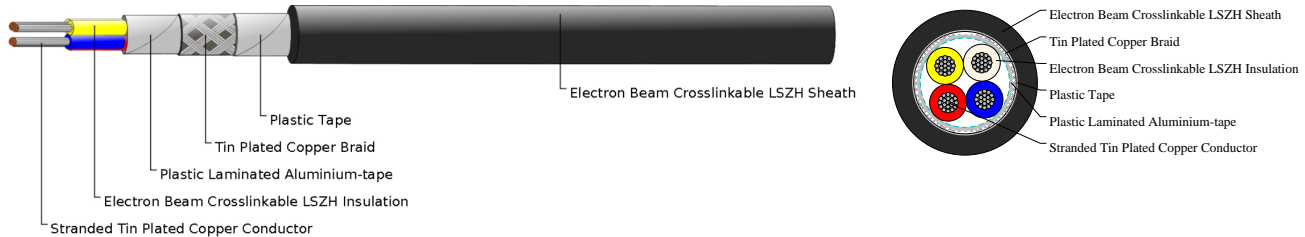
www.caledonian-cables.com

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## Firerail Databus Cables For Railway Applications

Category 5E Databus Cables

FRA-Cat5E-4C0.5S



## 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 tin 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: 0.5 mm<sup>2</sup>

Nominal Conductor Resistance: 40.1 Ω/km

Maximum Resistance Unbalance: 1.1 Ω/km



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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 <sup>2</sup>	no./mm	mm	mm	kg/km
4 x 0.5	19/0.18	1.2	8.3	102



Fire Retardant  
NF C32-070-2.2(C1)  
IEC60332-3-24/EN50266-2-4



Flame Retardant  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Highly Flexible



Impact Resistant



Low Corrosivity  
IEC60754-2/EN50267-2-2/3  
NF C32-074/NF C20-453



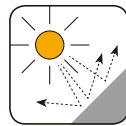
Low Smoke Emission  
IEC 61034-2 / EN 50268-2  
NF C32-073/NF C 20-902



Low Toxicity



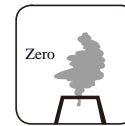
Oil Resistant



UV Resistant



Water Resistant



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