



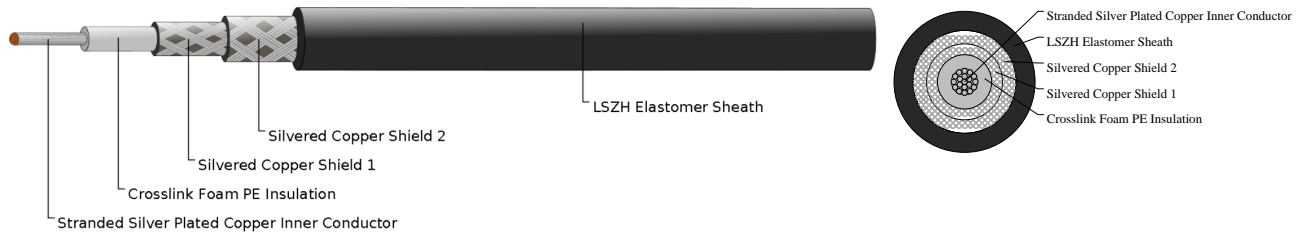
Caledonian

Coaxial Cables For Railway Application

www.caledonian-cables.com

marketing@caledonian-cables.com

FRA 400 SW4



APPLICATIONS

These cables are designed for flexible installations, inside and outside railway rolling stock.

STANDARDS

DIN 5510-2

CABLE CONSTRUCTION

Inner conductor: Stranded silver plated copper.

Insulation: Crosslink Foam PE (SPEX).

Outer conductor (shield 1): Silver plated copper.

Outer conductor (shield 2): Silver plated copper.

Sheath: LSZH Elastomer.

PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 25mm (static)

Temperature Range: -40°C ~ +105°C

Electrical Properties

Electrical Characteristics at 20°C:

Impedance: 50 ± 2 Ω

Nominal Capacitance: 94.5 pF/m

Minimum Insulation Resistance: 100000 MΩ.km

Inner Conductor Resistance: 29.45 MΩ/km

Outer Conductor Resistance: 7.6 MΩ/km

Attenuation:

@10MHz: 5 dB/100m

@50MHz: 11 dB/100m

@100MHz: 16 dB/100m

@150MHz: 20 dB/100m

@200MHz: 23 dB/100m

@300MHz: 29 dB/100m

@400MHz: 34 dB/100m

@450MHz: 36 dB/100m

@500MHz: 38 dB/100m



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@600MHz:42 dB/100m

@800MHz:50 dB/100m

@850MHz:51 dB/100m

@900MHz:53 dB/100m

@950MHz:55 dB/100m

@1000MHz:56 dB/100m

@1800MHz:79 dB/100m

@1900MHz:82 dB/100m

@2000MHz:84 dB/100m

@2400MHz:94 dB/100m

@3000MHz:107 dB/100m

@4000MHz:128 dB/100m

@5000MHz:147 dB/100m

@6000MHz:165 dB/100m

Velocity of propagation:70.7%

DIMENSION AND PARAMETERS

No./Nominal Diameter of Strands	Conductor Diameter	Nominal Outer Conductor Diameter	Nom. Overall Diameter	Approx. Weight
no./mm	mm	mm	mm	kg/km
19/0.2	1	4.24	5	60



Acid & Alkaline
Resistant



Fire Retardant
NF C32-070/32-207(1)
IEC60332-3-24/EN50266-2-4



Flame Retardant
NF C32-070/32-107(2)
IEC60332-1-2/EN50265-2-1



Highly Flexible



Impact Resistant



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



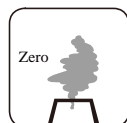
Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902



Low Toxicity



Oil Resistant



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