



# Caledonian

## Railway Cables

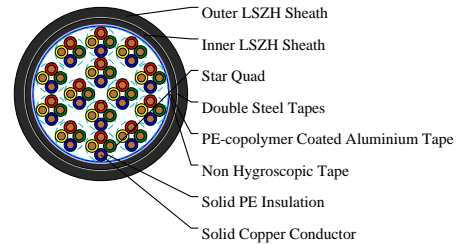
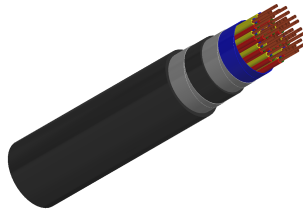
www.caledonian-cables.com

marketing@caledonian-cables.com

### K23 LSZH Subway Signalling Cables for Metro/Local Trains/Tramlines

1.2mm conductor, 2.0mm Insulated Wire (12/10)

RS/K23-2Y(L)HBH-14Q1.2



### APPLICATIONS

The cables are designed for remote control and teletransmission in underground railway networks. The cables can be laid in channel, cable tray, or on hook supports, along suburban railway lines electrified at maximum 1500V DC.

### STANDARDS

NF F 55-623

### CABLE CONSTRUCTION

Conductors: Copper wire, 1.2 mm nominal diameter.

Insulation: Solid polyethylene.

Cabling Element: Four conductors are twisted to form a star quad. For 1 & 4 pair cables, conductors shall be twisted in pairs.

Stranding: Quads are stranded in helically laid concentric layers or units to form the cable core.

Core wrapping: Plastic tape(s) with overlapping.

Moisture barrier: One laminated sheath made of aluminium tape coated with PE-Copolymer on at least one side is applied with longitudinally overlap.

Inner sheath: LSZH fire retardant compound.

Armour: Two helically applied steel tapes.

Outer sheath: LSZH fire retardant compound.

### PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 8xOD (static); 16xOD (dynamic)

Temperature Range: -40°C to +60°C (during operation); -20°C to +50°C (during installation)

### Electrical Properties

Electrical Characteristics at 20°C:

Nominal Conductor Diameter: 1.2 mm

Maximum Average DC Conductor Resistance: 16 Ω/km

Minimum Insulation Resistance @500 V DC (3mins): 5000MΩ.km



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Railway Cables

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Maximum Mutual Capacitance @1000Hz (AC) :57.5 nF/km

Maximum Capacitance Unbalance @800Hz:

k1 (side to side):435 pF/500 m

K9-12 (quad to quad):220 pF/500 m

Operating Voltages:750V

Maximum Permissible Current:1.4A

Dielectric strength (DC voltage 1min):

Conductor to Conductor:3000V

Conductor to Screen:1500V

### DIMENSION AND PARAMETERS

No. of Quad	Conductor Diameter	Nominal Diameter over Insulation	Nominal Inner Sheath Thickness	Nominal Outer Sheath Thickness	Nom. Overall Diameter	Approx. Weight
	mm	mm	mm	mm	mm	kg/km
14	1.1	2	1	1.4	25	710



Acid & Alkaline Resistant



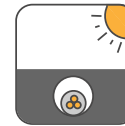
Fire Retardant  
NF C32-070-2, 20(1)  
IEC60332-3-24/EN50266-2-4



Flame Retardant  
NF C32-070-2, 10(2)  
IEC60332-1-2/EN50265-2-1



Impact Resistant



Laid In conduit



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 20-992



Low Toxicity



Mineral Oil Resistant



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