Caledonian
Railway Cables
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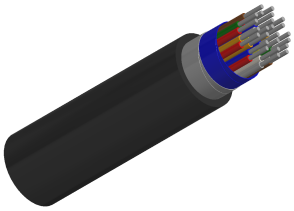
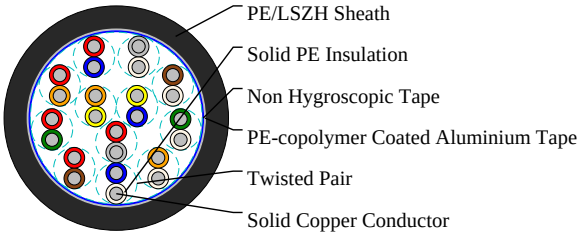
RT/F3 D type Axle Counter Cable

RS/RT/F3-D-2Y(F)(L)2Y-12P1.4





APPLICATIONS

The cables are designed for transmission of signals up to 90 kHz in axle counter train detection systems.

STANDARDS

RT/E/PS/00031

VOLTAGE RATING

750V DC/450V AC

CABLE CONSTRUCTION

Conductors: Tinned solid copper wire.
Insulation: Solid polyethylene.
Cabling Element: Two insulated conductors are twisted together to form a pair.
Stranding: Pairs are helically stranded in concentric layers.
Filling: Cable core interstices are filled with a low-permitivity compound. Unfilled cables option can be offered upon request.
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.
Outer Sheath: Polyethylene or LSZH fire retardant compound. Ruggedised PE sheath compound can be offered upon request.

COLOUR CODE

1P:WHITE+BLUE
2P:WHITE+ORANGE
3P:WHITE+GREEN
4P:WHITE+BROWN
5P:WHITE+GREY
6P:RED+BLUE
7P:RED+ORANGE
8P:RED+GREEN
9P:RED+BROWN

10P:RED+GREY
11P:YELLOW+BLUE
12P:YELLOW+ORANGE

PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 7.5xOD (unarmoured); 10xOD (armoured)
Temperature Range: -30℃ to +60℃ (during operation); -10℃ to +60℃ (during installation)

Electrical Properties

Electrical Characteristics at 20°C:
Nominal Conductor Diameter:1.4 mm
Nominal Conductor Cross Section:1.5 mm²
Maximum Conductor Resistance:12.5 Ω/km
Minimum Insulation Resistance @500 V DC (1min):5000 MΩ.km
Nominal Conductor Capacitance @800Hz/1000Hz (AC):47+3 nF/km
Dielectric Strength, conductor to screen (DC voltage 2mins):3000V
Maximum Average Attenuation:
@1.0KHz:0.46 dB/km
@2.4KHz:0.62 dB/km
@40KHz:1.77 dB/km
@90KHz:2.41 dB/km
@1.024MHz:7.45 dB/km
Minimum Average Near-end Crosstalk:
@1.0KHz:60 dB/km
@2.4KHz:60 dB/km
@40KHz:50 dB/km
@90KHz:50 dB/km
@1.024MHz:35 dB/km

DIMENSION AND PARAMETERS

No. of Pairs	Conductor Diameter	Nominal Diameter over Insulation	Nominal Outer Sheath Thickness	Nom. Overall Diameter	Approx. Weight
	mm	mm	mm	mm	kg/km
12	1.4	2.2	2.4	32	1101


Buried in Ground


Impact Resistant


Laid In Ducts


Rated voltage


UV Resistant


Water Resistant