

# Caledonian

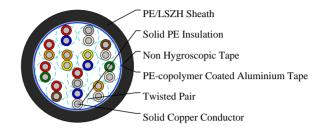
## Railway Cables www.caledonian-cables.com

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## RT/F3 D type Axle Counter Cable

RS/RT/F3-D-2Y(F)(L)2Y-12P0.9





#### **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



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

### PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 7.5xOD (unarmoured); 10xOD (armoured)

Temperature Range: -30°C to +60°C (during operation); -10°C to +60°C (during installation)

### **Electrical Properties**

Electrical Characteristics at 20°C:

Nominal Conductor Diameter: 0.9 mm

Nominal Conductor Cross Section: 0.63 mm<sup>2</sup>

Maximum Conductor Resistance:30 Ω/km

Minimum Insulation Resistance @500 V DC (1min):5000 MΩ.km

Nominal Conductor Capacitance @800Hz/1000Hz (AC):42+3 nF/km

Dielectric Strength, conductor to screen (DC voltage 2mins):3000V

Maximum Average Attenuation:

@1.0KHz:0.73 dB/km

@2.4KHz:1.1 dB/km

@40KHz:2.88 dB/km

@90KHz:3.7 dB/km

@1.024MHz:11.2 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	0.9	1.55	2.4	24.8	580









Laid In Ducts



Rated voltage



**UV** Resistant



Water Resistant