



# Caledonian

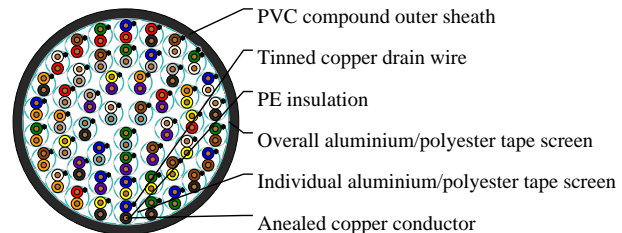
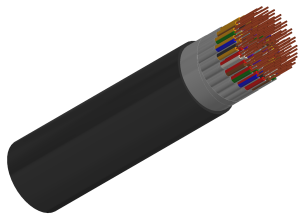
BS 5308 Instrumentation Cables

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## BS5308 Part 1 / Type 1 (unarmoured cables) PE-IS-OS-PVC

RE-2Y(St)Y PIMF 50P1



### APPLICATIONS

The unarmoured versions (Part 1 Type 1) are generally used for indoor installation and suitable for wet and damp areas. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services, Also used for the interconnection of electrical equipment and instruments, typically in petroleum industry.

### CABLE CONSTRUCTION

Conductor: Annealed or tinned copper, solid (Class 1) to BS6360

Insulation: PE (Polyethylene) type 03 to BS6234

Pairing: Two insulated conductors uniformly twisted together with a lay not exceeding 100mm

Individual screen: Aluminium/polyester tape is applied over each pair metallic side down in contact with tinned copper drain wire, 0.5mm<sup>2</sup>

Binder tape: PETP transparent tape

Collective screen: Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm<sup>2</sup>

Outer sheath: PVC Sheath, type TM 1 or type 6 to BS 6746

### COLOUR CODE

Insulation: See technical information

Outer Sheath: Black or blue

### PHYSICAL AND THERMAL PROPERTIES

Operating temperature:

-40°C up to +70°C (fixed installation)

0°C to +50°C (during operation)

Minimum bending radius:

5 x overall diameter

### Electrical Properties

Conductor Area Size: 1 mm<sup>2</sup>

Conductor Stranding (No. x mm): 1 x 1.13



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Conductor resistance(max):18.2 ohm/km

Insulation resistance(min):5 Gohm/km

Capacitance unbalance at 1kHz(pair to pair screen):250 pF/250m

Max. Mutual Capacitance @ 1kHz for Non OS or OS cables(except 1 pair and 2 pairs):75 pF/m

Max. Mutual Capacitance @ 1kHz IS/OS cables (include 1 pair and 2 pairs):115 pF/m

Max. L/R Ratio for adjacent cores(Inductance/Resistance):25  $\mu$ H/ohm

Test voltage :

Core to core:1000 V

Core to screen:1000V

Rated voltage max:300/500 V

### DIMENSION AND PARAMETERS

No. of Pairs	Nominal Cross-sectional Area	No. and Dia. of Wires	Nominal Insulation Thickness	Nominal Sheath Thickness
	mm <sup>2</sup>	no./mm	mm	mm
50	1	1/1.13	0.6	2.2