# Caledonian

BS 5308 Instrumentation Cables

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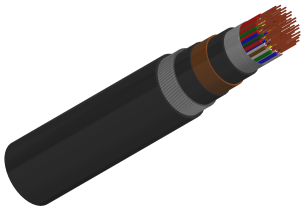
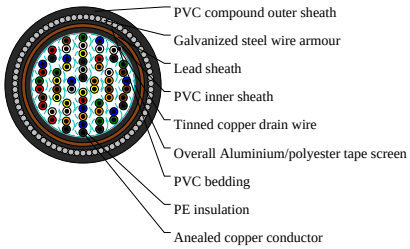
## BS 5308 Part 1 / Type 3 (Lead Sheath Cables) PE-OS-Lead-SWA-PVC

RE-2Y(St)Y MY SWA Y 30P0.5






## APPLICATIONS

The armoured versions (Part 1 Type 3) are generally used when the risk of mechanical damage is increased. The galvanised steel wire armour provides excellent protection. 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. They are well adapted to underground use in industrial applications, in moist areas, where chemical and mechanical protections are needed. The lead sheath brings an enhanced resistance to aromatic hydrocarbons.

## CABLE CONSTRUCTION

Conductor:Annealed or tinned copper, mulitistranded(Class 5) to BS6360
Insulation:PE (Polyethylene) type 03 to BS6234
Pairing:Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
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, 0.5mm²
Inner Sheath:PVC (polyvinyl chloride), type TM 1 or type 6 to BS 6746
Lead Sheath:Lead Alloy
Bedding:PVC (polyvinyl chloride), TM 1 to BS 6746
Amour:Galvanized steel wire armour
Outer sheath:PVC Sheath, type TM 1 or type 6 to BS 6746

## COLOUR CODE

Insulation colour code :See technical information
Sheath colour: 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:
15 x overall diameter

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## Electrical Properties

Conductor Area Size:0.5 mm²
Conductor Stranding(No.xmm):16x0.2
Conductor resistance(max):39.7 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 μH/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 Dia. over Bedding | Nominal Armour Wire Diameter |
|---|---|---|---|---|---|
| | mm² | no./mm | mm | mm | mm |
| 30 | 0.5 | 16/0.2 | 0.6 | 26.9 | 1.6 |