



# Caledonian

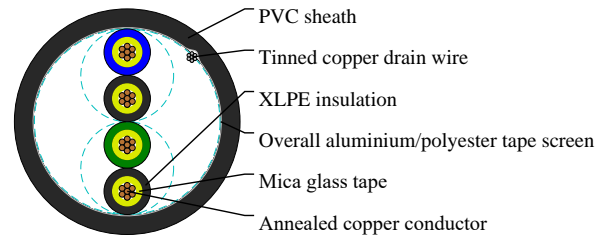
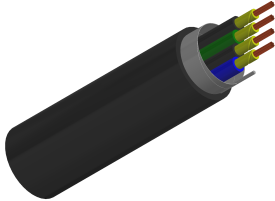
BS 5308 Instrumentation Cables

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## BS5308 Part 1 / Type 1 (unarmoured cables)

MG-XLPE-OS-LSOH 2P1



## APPLICATIONS

The unarmoured fire resistant versions (Part 1 Type 1) are typically used in chemical and process industries where there is danger of fire.

## CABLE CONSTRUCTION

Conductor: Annealed or tinned copper, Class 2

Insulation: Mica glass tape, XLPE (Cross Linked Polyethylene), or PE (optional)

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, 0.5mm<sup>2</sup>

Inner Sheath :LSOH(Low Smoke Zero Halogen) sheath

Amour :Galvanized steel wire armour

Outer sheath:LSOH(Low Smoke Zero Halogen) sheath

Flame retardant to IEC60332-3-22

Fire resistant to IEC60331

Halogen free to IEC60754-1

Low smoke emission to IEC61034-1-2

## COLOUR CODE

Insulation colour code :See technical information

Sheath colour: Black or blue

## PHYSICAL AND THERMAL PROPERTIES

Operating temperature:

-20°C up to + 90°C( fixed installation)

0°C to +50°C(during operation )

Minimum bending radius:

5 x overall diameter

## Electrical Properties



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

Conductor Stranding(No.xmm):7x0.44

Conductor resistance(max):18.1 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	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Insulation Thickness	Nominal Bedding Thickness	Nominal Dia. over Bedding	Nominal Sheath Thickness	Nominal Steel Wire Armour Diameter
	no./mm	mm <sup>2</sup>	mm	mm	mm	mm	mm
2	7/0.44	1	0.6	0.8	7.0	1.4	0.9