

BS 5308 Part 1 Type 2 - ICAM Silicone - LSZH Instrumentation Cable



Eland Product Group: **I**

APPLICATION

BS 5308 cables are designed to carry communication and control signals in a variety of installation types including those found in the petrochemical industry. The signals can be of analogue, data or voice types and from a variety of transducers such as pressure, proximity or microphone. Part 1 Type 2 cables are designed where a greater degree of mechanical protection is required or where there is direct burial at a suitable depth. Collectively and individually screened pairs are available within the range.

CONSTRUCTION

Conductor

Class 1 solid copper conductor according to BS EN 60228
Class 2 stranded copper conductor according to BS EN 60228
Class 5 flexible copper conductor according to BS EN 60228

Insulation

Silicone rubber ceramic type

Binder Tape

PET (Polyester Tape)

Individual And Collective Screen

AL/PET (Aluminium/Polyester Tape)

Inner Sheath

LSZH (Low Smoke Zero Halogen) Type LTS3 according to BS 7655

Drain Wire

Tinned copper

Armour

Galvanized steel wires

Outer Sheath

LSZH (Low Smoke Zero Halogen) Type LTS3 according to BS 7655

CABLE STANDARDS

BS/PAS 5308, BS EN 60228, BS 6234, BS EN 50363, BS EN/IEC 60331-21, BS EN/IEC 60332-1, BS EN/IEC 60332-3-24, BS EN/IEC 61034-2, BS EN/IEC 60754-1 and 2, BS EN/IEC 60332-3-22



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

300/500V

Operating Temperature

+200°C

Temperature Rating

+5°C to +50°C

Outer Sheath Colour

● Red ● Black

DIMENSIONS

Individually and Collectively Screened

| ELAND PART NO. | NO. OF PAIRS/TRIPLE | NOMINAL CROSS SECTIONAL AREA mm ² | NOMINAL OVERALL DIAMETER mm |
|-----------------|---------------------|---|--------------------------------|
| IFRP1T2SI**0205 | 2P | 0.5 | 14.6 |
| IFRP1T2SI**0210 | 2P | 1 | 15.4 |
| IFRP1T2SI**0215 | 2P | 1.5 | 17.7 |
| IFRP1T2SI**0225 | 2P | 2.5 | 19.9 |
| IFRP1T2SI**0275 | 2P | 0.75 | 15.8 |
| IFRP1T2SI**0305 | 3P | 0.5 | 15.4 |
| IFRP1T2SI**0310 | 3P | 1 | 16.7 |
| IFRP1T2SI**0315 | 3P | 1.5 | 18.5 |
| IFRP1T2SI**0325 | 3P | 2.5 | 20.8 |
| IFRP1T2SI**0375 | 3P | 0.75 | 16.9 |
| IFRP1T2SI**0505 | 5P | 0.5 | 18.2 |
| IFRP1T2SI**0510 | 5P | 1 | 19.9 |
| IFRP1T2SI**0515 | 5P | 1.5 | 22.6 |
| IFRP1T2SI**0525 | 5P | 2.5 | 25.9 |
| IFRP1T2SI**0575 | 5P | 0.75 | 20.1 |
| IFRP1T2SI**1005 | 10P | 0.5 | 26 |
| IFRP1T2SI**1010 | 10P | 1 | 27.4 |
| IFRP1T2SI**1015 | 10P | 1.5 | 31 |
| IFRP1T2SI**1025 | 10P | 2.5 | 34.9 |
| IFRP1T2SI**1075 | 10P | 0.75 | 27.7 |
| IFRP1T2SI**1505 | 15P | 0.5 | 29.1 |
| IFRP1T2SI**1510 | 15P | 1 | 30.6 |
| IFRP1T2SI**1515 | 15P | 1.5 | 35.8 |
| IFRP1T2SI**1525 | 15P | 2.5 | 39.2 |
| IFRP1T2SI**1575 | 15P | 0.75 | 31 |
| IFRP1T2SI**2005 | 20P | 0.5 | 31.8 |
| IFRP1T2SI**2010 | 20P | 1 | 34.8 |
| IFRP1T2SI**2015 | 20P | 1.5 | 39.7 |
| IFRP1T2SI**2025 | 20P | 2.5 | 43.4 |
| IFRP1T2SI**2075 | 20P | 0.75 | 35.2 |
| IFRP1T2SI**3005 | 30P | 0.5 | 37.2 |
| IFRP1T2SI**3010 | 30P | 1 | 39.7 |
| IFRP1T2SI**3015 | 30P | 1.5 | 45.2 |
| IFRP1T2SI**3025 | 30P | 2.5 | 50.6 |
| IFRP1T2SI**3075 | 30P | 0.75 | 40.3 |

P = Pairs

Eland Part No. shown above designate the sheath colour (). For each colour substitute * for a colour code as listed below. e.g. IFRP1T2SIRD0205 = 0.5mm² Red

Colour Codes

| COLOUR | Black | Red |
|--------|-------|-----|
| CODE | BK | RD |

ELECTRICAL CHARACTERISTICS

Individually and Collectively Screened Cables

| NOMINAL GROSS SECTIONAL AREA mm ² | MUTUAL CAPACITANCE pF/m | | MINIMUM INSULATION RESISTANCE AT 20°C Gohms/km | MAXIMUM L/R RATIO μH/ohms |
|---|---------------------------------|-----------------------------|---|------------------------------|
| | Between Pairs or Adjacent Cores | Between any Core and Screen | | |
| 0.5 | 250 | 450 | >25 | 25 |
| 0.75 | 250 | 450 | >25 | 25 |
| 1 | 250 | 450 | >25 | 25 |
| 1.5 | 250 | 450 | >25 | 40 |
| 2.5 | 250 | 450 | >25 | 65 |

CONDUCTORS

| NOMINAL CROSS SECTIONAL AREA mm ² | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km |
|---|---|
| 0.5 | 39 |
| 0.75 | 26 |
| 1 | 18.1 |
| 1.5 | 12.1 |
| 2.5 | 7.41 |

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.