

# BS 5308 Part 1 Type 3 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 petrochemicals industry. The signals can be of analogue, data or voice type and from a variety of transducers such as pressure, proximity and microphone. Part 1 Type 3 cables are generally designed where a greater degree of mechanical and chemical protection is required or direct burial at a suitable depth. Collectively and individually screened pairs are available within the range. For installations where fire, smoke emission and toxic fumes create a potential risk to life and equipment.

## 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.

## 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)

### Screen

AL/PET (Aluminium/Polyester Tape)

### Drain Wire

Tinned copper

### Bedding

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

### Covering

Lead or polyamide cover

### Inner Sheath

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

### Armour

Galvanized steel wires

### Outer Sheath

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

## CHARACTERISTICS

### Voltage Rating (U<sub>o</sub>/U)

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 GROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL OVERALL DIAMETER mm
IFRP1T3IS**0205	2P	0.5	18.6
IFRP1T3IS**0210	2P	1	20.1
IFRP1T3IS**0215	2P	1.5	23
IFRP1T3IS**0225	2P	2.5	24.3
IFRP1T3IS**0275	2P	0.75	20.8
IFRP1T3IS**0305	3P	0.5	20
IFRP1T3IS**0310	3P	1	21.7
IFRP1T3IS**0315	3P	1.5	23.8
IFRP1T3IS**0325	3P	2.5	26.2
IFRP1T3IS**0375	3P	0.75	21.9
IFRP1T3IS**0505	5P	0.5	23.4
IFRP1T3IS**0510	5P	1	24.3
IFRP1T3IS**0515	5P	1.5	27.8
IFRP1T3IS**0525	5P	2.5	30.7
IFRP1T3IS**0575	5P	0.75	24.5
IFRP1T3IS**1005	10P	0.5	30.8
IFRP1T3IS**1010	10P	1	33.2
IFRP1T3IS**1015	10P	1.5	37.4
IFRP1T3IS**1025	10P	2.5	40.5
IFRP1T3IS**1075	10P	0.75	33.5
IFRP1T3IS**1505	15P	0.5	35.5
IFRP1T3IS**1510	15P	1	37
IFRP1T3IS**1515	15P	1.5	41.4
IFRP1T3IS**1525	15P	2.5	44.8
IFRP1T3IS**1575	15P	0.75	37.4
IFRP1T3IS**2005	20P	0.5	38.2
IFRP1T3IS**2010	20P	1	40.4
IFRP1T3IS**2015	20P	1.5	45.3
IFRP1T3IS**2025	20P	2.5	50.2
IFRP1T3IS**2075	20P	0.75	40.8
IFRP1T3IS**3005	30P	0.5	43
IFRP1T3IS**3010	30P	1	45.3
IFRP1T3IS**3015	30P	1.5	52.2
IFRP1T3IS**3025	30P	2.5	57.4
IFRP1T3IS**3075	30P	0.75	46.7

P = Pairs

\*Eland Part No. shown above designate the sheath colour (\*). For each colour substitute \* for a colour code as listed below. e.g. IFRP1T3ISR0205 = 0.5mm<sup>2</sup> Red

## Colour Codes

COLOUR	Black	Red
CODE	BK	RD

## CONDUCTORS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR CLASS	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km
0.5	5	39
0.75	5	26
1	1	18.1
1.5	2	12.1
2.5	2	7.41

## ELECTRICAL CHARACTERISTICS

### Individually and Collectively Screened Cables

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MUTUAL CAPACITANCE pF/m		MINIMUM INSULATION RESISTANCE AT 20°C mohms/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