

# BS 5308 Part 1 Type 1 CAM XLPE - 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 1 cables are generally designed for indoor use and in environments where mechanical protection is not required. Collectively and individually screened pairs are available within the range. Suitable for fire resistant installations.

## CABLE STANDARDS

BS/PAS 5308, BS EN 60228, BS 6234, BS EN 50363,  
BS EN/IEC 60331-1, BS EN/IEC 60332-3-24



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 (previously BS 6360)
- Class 2 stranded copper conductor according to BS EN 60228 (previously BS 6360)
- Class 5 flexible copper conductor according to BS EN 60228 (previously BS 6360)

### Insulation

MICA Tape + XLPE (Cross-Linked Polyethylene)

### Binder Tape

PET (Polyester Tape)

### Screen

PET (Polyester Tape)  
AL/PET (Aluminium/Polyester Tape)

### Drain Wire

Tinned copper

### Sheath

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

## CHARACTERISTICS

**Voltage Rating (U<sub>o</sub>/U)**  
300/500V

**Operating Temperature**  
+90°C

**Temperature Rating**  
0°C to +50°C

**Sheath Colour**  
● Red ● Black

## DIMENSIONS

## Collectively Screened

ELAND PART NO.	NO. OF PAIRS/TRIPLE	NOMINAL GROSS SECTIONAL AREA mm <sup>2</sup>	NOMINAL OVERALL DIAMETER mm
IFRP1T1CL**0105	1P	0.5	6.9
IFRP1T1CL**0110	1P	1	7.3
IFRP1T1CL**0115	1P	1.5	8.5
IFRP1T1CL**0125	1P	2.5	9.3
IFRP1T1CL**0175	1P	0.75	7.4
IFRP1T1CL**1T05	1T	0.5	7.3
IFRP1T1CL**1T10	1T	1	7.8
IFRP1T1CL**1T15	1T	1.5	9
IFRP1T1CL**1T25	1T	2.5	9.9
IFRP1T1CL**1T75	1T	0.75	8.1
IFRP1T1CL**0205	2P(Q)	0.5	8.2
IFRP1T1CL**0210	2P (Q)	1	8.7
IFRP1T1CL**0215	2P (Q)	1.5	9.9
IFRP1T1CL**0225	2P (Q)	2.5	11.1
IFRP1T1CL**0275	2P (Q)	0.75	8.8
IFRP1T1CL**0505	5P	0.5	14.5
IFRP1T1CL**0510	5P	1	15.4
IFRP1T1CL**0515	5P	1.5	17.9
IFRP1T1CL**0525	5P	2.5	20.3
IFRP1T1CL**0575	5P	0.75	15.6
IFRP1T1CL**1005	10P	0.5	21
IFRP1T1CL**1010	10P	1	22.3
IFRP1T1CL**1015	10P	1.5	25.7
IFRP1T1CL**1025	10P	2.5	28.4
IFRP1T1CL**1075	10P	0.75	22.7
IFRP1T1CL**1505	15P	0.5	24.1
IFRP1T1CL**1510	15P	1	25.6
IFRP1T1CL**1515	15P	1.5	29.6
IFRP1T1CL**1525	15P	2.5	30.3
IFRP1T1CL**1575	15P	0.75	26
IFRP1T1CL**2005	20P	0.5	27
IFRP1T1CL**2010	20P	1	28.8
IFRP1T1CL**2015	20P	1.5	33.6
IFRP1T1CL**2025	20P	2.5	37.2
IFRP1T1CL**2075	20P	0.75	29.3

P = Pairs

Q = Quad

T = Triple

\*Eland Part No. shown above designate the sheath colour (\*). For each colour substitute \* for a colour code as listed below. e.g. IFRP1T1CLRD0105 = 0.5mm<sup>2</sup> Red

## Colour Codes

COLOUR	Black	Red
CODE	BK	RD

## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MUTUAL CAPACITANCE pF/m			MINIMUM INSULATION RESISTANCE AT 20°C Gohms/km	MAXIMUM L/R RATIO μH/ohms
	Cables with Collective Screen Only	1 Pair, 2 Pairs, 1 Triple Collectively Screened	Cables with Individually Screened Pairs		
0.5	75	115	115	>5	25
0.75	75	115	115	>5	25
1	75	115	115	>5	25
1.5	85	120	120	>5	40
2.5	85	120	120	>5	65

## 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