

BS 5308 Part 1 Type 3 - 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 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

PAS 5308 Part 1 Type 3, BS EN 60228, BS 6234, BS 50363, BS EN/IEC 60332-1, 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
Class 2 stranded copper conductor
Class 5 flexible copper conductor

Insulation

XLPE (Cross-Linked Polyethylene) Type 03 acc. to BS 6234

Binder Tape

PET (Polyester Tape)

Screen

AL/PET (Aluminium/Polyester Tape)

Drain Wire

Tinned copper

Bedding

LSZH (Low Smoke Zero Halogen) Type LTS3

Covering

Lead or polyamide

Inner Sheath

LSZH (Low Smoke Zero Halogen) Type LTS3

Armour

Galvanized steel wires

Outer Sheath

LSZH (Low Smoke Zero Halogen) Type LTS3

CHARACTERISTICS

Voltage Rating (U_o/U)

300/500V

Operating Temperature

+90°C

Outer Sheath Colour

● Blue ● Black

DIMENSIONS

Collectively Screened

ELAND PART NO.	NO. OF PAIRS/TRIPLE	NOMINAL GROSS SECTIONAL AREA mm ²	NOMINAL OVERALL DIAMETER mm
I0105P1T3CL**	1P	0.5	15.4
I0110P1T3CL**	1P	1	15.8
I0115P1T3CL**	1P	1.5	16.9
I0125P1T3CL**	1P	2.5	18.4
I0175P1T3CL**	1P	0.75	15.6
I1T05P1T3CL**	1T	0.5	16
I1T10P1T3CL**	1T	1	16.4
I1T15P1T3CL**	1T	1.5	17.8
I1T25P1T3CL**	1T	2.5	19.2
I1T75P1T3CL**	1T	0.75	16.2
I0205P1T3CL**	2P(Q)	0.5	16.3
I0210P1T3CL**	2P (Q)	1	17
I0215P1T3CL**	2P (Q)	1.5	19
I0225P1T3CL**	2P (Q)	2.5	20
I0275P1T3CL**	2P (Q)	0.75	16.8
I0505P1T3CL**	5P	0.5	22.6
I0510P1T3CL**	5P	1	25
I0515P1T3CL**	5P	1.5	27.4
I0525P1T3CL**	5P	2.5	29.4
I0575P1T3CL**	5P	0.75	24.8
I1005P1T3CL**	10P	0.5	28.4
I1010P1T3CL**	10P	1	29.6
I1015P1T3CL**	10P	1.5	33.2
I1025P1T3CL**	10P	2.5	38.3
I1075P1T3CL**	10P	0.75	29.4
I1505P1T3CL**	15P	0.5	31.2
I1510P1T3CL**	15P	1	32.9
I1515P1T3CL**	15P	1.5	38.4
I1525P1T3CL**	15P	2.5	43
I1575P1T3CL**	15P	0.75	32.7
I2005P1T3CL**	20P	0.5	33.9
I2010P1T3CL**	20P	1	37.6
I2015P1T3CL**	20P	1.5	42.1
I2025P1T3CL**	20P	2.5	48.6
I2075P1T3CL**	20P	0.75	37.4

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. I0105P1T3CLBK = 0.5mm² Black

Colour Codes

COLOUR	Black	Blue
CODE	BK	BL

CONDUCTORS

NOMINAL CROSS SECTIONAL AREA mm ²	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

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

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.