

# BS 5308 Part 1 Type 3 - ICAM XLPE - SWA - 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

### 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<sub>o</sub>/U)

300/500V

### Operating Temperature

+90°C

### Outer Sheath Colour

● Blue ● 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
I0205P1T3IC**	2P	0.5	20
I0210P1T3IC**	2P	1	20.8
I0215P1T3IC**	2P	1.5	22.6
I0225P1T3IC**	2P	2.5	25.3
I0275P1T3IC**	2P	0.75	20.6
I0305P1T3IC**	3P	0.5	21.9
I0310P1T3IC**	3P	1	23.1
I0315P1T3IC**	3P	1.5	25.1
I0325P1T3IC**	3P	2.5	30.1
I0375P1T3IC**	3P	0.75	23.2
I0505P1T3IC**	5P	0.5	23.1
I0510P1T3IC**	5P	1	25.3
I0515P1T3IC**	5P	1.5	28
I0525P1T3IC**	5P	2.5	40.5
I0575P1T3IC**	5P	0.75	25.1
I1005P1T3IC**	10P	0.5	30.2
I1010P1T3IC**	10P	1	32
I1015P1T3IC**	10P	1.5	37.1
I1025P1T3IC**	10P	2.5	45.1
I1075P1T3IC**	10P	0.75	31.8
I1505P1T3IC**	15P	0.5	33.5
I1510P1T3IC**	15P	1	36.9
I1515P1T3IC**	15P	1.5	41.2
I1525P1T3IC**	15P	2.5	51.3
I1575P1T3IC**	15P	0.75	36.7
I2005P1T3IC**	20P	0.5	37.8
I2010P1T3IC**	20P	1	40.3
I2015P1T3IC**	20P	1.5	45.1
I2025P1T3IC**	20P	2.5	58.6
I2075P1T3IC**	20P	0.75	40.1
I3005P1T3IC**	30P	0.5	43
I3010P1T3IC**	30P	1	45.4
I3015P1T3IC**	30P	1.5	53
I3025P1T3IC**	30P	2.5	72.2
I3075P1T3IC**	30P	0.75	45.2

P = Pairs

\*Eland Part No. shown above designate the sheath colour (\*). For each colour substitute \* for a colour code as listed below. e.g. I0205P1T3ICBK = 0.5mm<sup>2</sup> Black

## Colour Codes

COLOUR	Black	Blue
CODE	BK	BL

## 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
	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