

BS 5308 Part 1 Type 3 - ICAM - PE - PVC 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.

CABLE STANDARDS

BS/PAS 5308, BS EN 60228, BS EN 6234, BS EN 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 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

PE (Polyethylene) Type 03 according to BS 6234

Binder Tape

PET (Polyester Tape)

Screen

AL/PET (Aluminium/Polyester Tape)

Drain Wire

Tinned copper

Bedding

PE (Polyethylene) Type 03 according to BS 6234

Covering

Lead or polyamide

Inner Sheath

PE (Polyethylene) Type 03 according to BS 6234

Armour

Galvanized steel wires

Outer Sheath

PVC (Polyvinyl Chloride) Type TM1 according to BS EN 50363

CHARACTERISTICS

Voltage Rating (U_o/U)

300/500V

Operating Temperature

+75°C

Outer Sheath Colour

● Blue ● Black

DIMENSIONS

Individually and Collectively Screened

ELAND PART NO.	NO. OF PAIRS/TRIPLE	NOMINAL GROSS SECTIONAL AREA mm ²	NOMINAL OVERALL DIAMETER mm
I0205P1T3ICP**	2P	0.5	20
I0275P1T3ICP**	2P	0.75	20.6
I0210P1T3ICP**	2P	1	20.8
I0215P1T3ICP**	2P	1.5	22.6
I0225P1T3ICP**	2P	2.5	25.3
I0305P1T3ICP**	3P	0.5	21.9
I0375P1T3ICP**	3P	0.75	23.2
I0310P1T3ICP**	3P	1	23.4
I0315P1T3ICP**	3P	1.5	24.6
I0325P1T3ICP**	3P	2.5	30.1
I0505P1T3ICP**	5P	0.5	23.1
I0575P1T3ICP**	5P	0.75	25.1
I0510P1T3ICP**	5P	1	25.3
I0515P1T3ICP**	5P	1.5	28
I0525P1T3ICP**	5P	2.5	40.5
I1005P1T3ICP**	10P	0.5	30.2
I1075P1T3ICP**	10P	0.75	31.8
I1010P1T3ICP**	10P	1	32
I1015P1T3ICP**	10P	1.5	37.1
I1025P1T3ICP**	10P	2.5	45.1
I1505P1T3ICP**	15P	0.5	33.5
I1575P1T3ICP**	15P	0.75	36.7
I1510P1T3ICP**	15P	1	36.9
I1515P1T3ICP**	15P	1.5	41.2
I1525P1T3ICP**	15P	2.5	51.3
I2005P1T3ICP**	20P	0.5	37.8
I2075P1T3ICP**	20P	0.75	40.1
I2010P1T3ICP**	20P	1	40.3
I2015P1T3ICP**	20P	1.5	45.1
I2025P1T3ICP**	20P	2.5	58.6
I3005P1T3ICP**	30P	0.5	43
I3075P1T3ICP**	30P	0.75	45.2
I3010P1T3ICP**	30P	1	45.4
I3015P1T3ICP**	30P	1.5	53
I3025P1T3ICP**	30P	2.5	72.2

P = Pairs

Eland Part No. shown above designate the sheath colour (). For each colour substitute * for a colour code as listed below. e.g. I0205P1T3ICPBK = 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

Individually and Collectively Screened Cables

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	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