

BS 5308 Part 1 Type 1 - CAM - XLPE 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 type 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 where further signal security is required.

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

Insulation

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

Binding Tape

PET (Polyester Tape)

Screen

AL/PET (Aluminium/Polyester Tape)

Drain Wire

Tinned copper

Sheath

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

CHARACTERISTICS

Voltage Rating (U₀/U)

300/500V

Temperature Rating

Fixed: -30°C to +90°C

Minimum Bending Radius

Fixed: 12 x overall diameter

Sheath Colour

● Blue ● Black

DIMENSIONS

Collectively Screened

ELAND PART NO.	NO. OF PAIRS/TRIPLE	NOMINAL GROSS SECTIONAL AREA mm ²	NOMINAL OVERALL DIAMETER mm
I0105P1T1CL**	1P	0.5	7
I0175P1T1CL**	1P	0.75	7.4
I0110P1T1CL**	1P	1	7.4
I0115P1T1CL**	1P	1.5	8.3
I0125P1T1CL**	1P	2.5	9.1
I1T05P1T1CL**	1T	0.5	7.3
I1T75P1T1CL**	1T	0.75	7.7
I1T10P1T1CL**	1T	1	7.7
I1T15P1T1CL**	1T	1.5	8.9
I1T25P1T1CL**	1T	2.5	9.7
I0205P1T1CL**	2P	0.5	7.9
I0405P1T1CL**	Q	0.5	7.9
I0275P1T1CL**	2P	0.75	8.4
I0475P1T1CL**	Q	0.75	8.4
I0210P1T1CL**	2P	1	8.4
I0215P1T1CL**	2P	1.5	9.7
I0225P1T1CL**	2P	2.5	10.7
I0505P1T1CL**	5P	0.5	13.1
I0575P1T1CL**	5P	0.75	13.8
I0510P1T1CL**	5P	1	14.2
I0515P1T1CL**	5P	1.5	16.4
I0525P1T1CL**	5P	2.5	18.2
I1005P1T1CL**	10P	0.5	17.2
I1075P1T1CL**	10P	0.75	18.9
I1010P1T1CL**	10P	1	18.4
I1015P1T1CL**	10P	1.5	21.6
I1025P1T1CL**	10P	2.5	25.1
I1505P1T1CL**	15P	0.5	19.8
I1575P1T1CL**	15P	0.75	21.9
I1510P1T1CL**	15P	1	21.3
I1515P1T1CL**	15P	1.5	25.4
I1525P1T1CL**	15P	2.5	29.2
I2005P1T1CL**	20P	0.5	22.3
I2075P1T1CL**	20P	0.75	24.6
I2010P1T1CL**	20P	1	24.4
I2015P1T1CL**	20P	1.5	28.5
I2025P1T1CL**	20P	2.5	39.8

P = Pairs
Q = Quad
T = Triple

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		
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

CORE COLOURS

PAIR NO.	A WIRE	B WIRE
1	Black	Blue
2	Black	Green
3	Blue	Green
4	Black	Brown
5	Blue	Brown
6	Green	Brown
7	Black	White
8	Blue	White
9	Green	White
10	Brown	White
11	Black	Red
12	Blue	Red
13	Green	Red
14	Brown	Red
15	White	Red
16	Black	Orange
17	Blue	Orange
18	Green	Orange
19	Brown	Orange
20	White	Orange
21	Red	Orange
22	Black	Yellow
23	Blue	Yellow
24	Green	Yellow

PAIR NO.	A WIRE	B WIRE
25	Brown	Yellow
26	White	Yellow
27	Red	Yellow
28	Orange	Yellow
29	Black	Grey
30	Blue	Grey
31	Green	Grey
32	Brown	Grey
33	White	Grey
34	Red	Grey
35	Orange	Grey
36	Yellow	Grey
37	Black	Violet
38	Blue	Violet
39	Green	Violet
40	Brown	Violet
41	White	Violet
42	Red	Violet
43	Orange	Violet
44	Yellow	Violet
45	Grey	Violet
46	Black	Turquoise
47	Blue	Turquoise
48	Green	Turquoise
49	Brown	Turquoise
50	White	Turquoise

Individually screened pairs will be number coded all with Pair 1 colouring

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.