



# PAS/BS 5308 Part 1 Type 1 XLPE/CAM/LSZH Cable



Eland Product Group: I

## APPLICATION

PAS (publicly available standard) 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.

## CHARACTERISTICS

**Voltage Rating** U<sub>0</sub>/U  
300/500V

**Temperature Rating**  
Fixed: -40°C to +80°C  
Flexed: 0°C to +50°C

**Minimum Bending Radius**  
Fixed: 6 x overall diameter

## CONSTRUCTION

**Conductor**  
0.5mm<sup>2</sup> - 0.75mm<sup>2</sup>: Class 5 flexible copper conductor  
1mm<sup>2</sup> and above: Class 2 stranded copper conductor

**Insulation**  
XLPE (Cross-Linked Polyethylene)

**Screen**  
Al/PET (Aluminium/Polyester Tape)

**Drain Wire**  
Tinned copper

**Sheath**  
LSZH (Low Smoke Zero Halogen)

**Sheath Colour**  
● Blue ● Black

## STANDARDS

PAS/BS 5308, EN 60228

Flame Retardant according to: IEC/EN 60332-1-2,  
IEC/EN 60332-3-24

## THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



## SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: [www.elandcables.com/company/about-us/esg-sustainability](https://www.elandcables.com/company/about-us/esg-sustainability)



## REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/86/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.





## DIMENSIONS

ELAND PART NO.	NO. OF PAIRS/TRIPLE	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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

\* Designates the sheath colour. For each Eland Cables part number replace with the colour code e.g. I0105P1T1CLBK=0.5mm<sup>2</sup> Black



## 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

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	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

## CORE IDENTIFICATION

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
25	● Brown	● Yellow
26	○ White	● Yellow
27	● Red	● Yellow



PAIR NO.	A WIRE	B WIRE
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