# PAS BS 5308 Part 1 Type 2 XLPE/ICAM/LSZH/SWA/LSZH Cable


Eland Product Group: I

## APPLICATION

Publicly Available Standard (PAS) 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 types and from a variety of transducers such as pressure, proximity or microphone. Part 1 Type 2 cables are designed where a greater degree of mechanical protection is required or where there is direct burial at a suitable depth. Individually screened for enhanced signal security.

## CHARACTERISTICS

**Voltage Rating** (Uo/U)
300/500V

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

**Minimum Bending Radius**
Fixed: 12 x overall diameter

## CONSTRUCTION

**Conductor**
0.5mm² - 0.75mm²: Class 5 flexible copper conductor
1mm² and above: Class 2 stranded copper conductor

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

**Individual and Collective Screen**
Al/PET (Aluminium/Polyester Tape)

**Drain Wire**
Tinned copper

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

**Armour**
SWA (Galvanised Steel Wire Armour)

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

**Sheath Colour**
● Blue ● Black

## STANDARDS

BS/PAS 5308, EN 60228

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

## THE CABLE LAB®

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

## 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 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

## DIMENSIONS

| ELAND PART NO. | NO. OF PAIRS | NOMINAL CROSS SECTIONAL AREA mm² | NOMINAL OVERALL DIAMETER mm | NOMINAL WEIGHT kg/km |
|---|---|---|---|---|
| I0205P1T2ICL** | 2P | 0.5 | 15.3 | 316 |
| I0275P1T2ICL** | 2P | 0.75 | 16 | 349 |
| I0210P1T2ICL** | 2P | 1 | 15.9 | 361 |
| I0215P1T2ICL** | 2P | 1.5 | 18.6 | 431 |
| I0225P1T2ICL** | 2P | 2.5 | 20 | 542 |
| I0305P1T2ICL** | 3P | 0.5 | 16.4 | 352 |
| I0375P1T2ICL** | 3P | 0.75 | 17.1 | 393 |
| I0310P1T2ICL** | 3P | 1 | 17 | 411 |
| I0315P1T2ICL** | 3P | 1.5 | 19.7 | 526 |
| I0325P1T2ICL** | 3P | 2.5 | 21.1 | 601 |
| I0505P1T2ICL** | 5P | 0.5 | 19.1 | 454 |
| I0575P1T2ICL** | 5P | 0.75 | 20 | 544 |
| I0510P1T2ICL** | 5P | 1 | 20 | 575 |
| I0515P1T2ICL** | 5P | 1.5 | 22.5 | 802 |
| I0525P1T2ICL** | 5P | 2.5 | 25.5 | 978 |
| I1005P1T2ICL** | 10P | 0.5 | 25.6 | 844 |
| I1075P1T2ICL** | 10P | 0.75 | 27 | 984 |
| I1010P1T2ICL** | 10P | 1 | 27 | 1044 |
| I1015P1T2ICL** | 10P | 1.5 | 30.7 | 1474 |
| I1025P1T2ICL** | 10P | 2.5 | 33.9 | 1813 |
| I1505P1T2ICL** | 15P | 0.5 | 28.7 | 1065 |
| I1575P1T2ICL** | 15P | 0.75 | 30.6 | 1428 |
| I1510P1T2ICL** | 15P | 1 | 30.5 | 1515 |
| I1515P1T2ICL** | 15P | 1.5 | 34.6 | 1857 |
| I1525P1T2ICL** | 15P | 2.5 | 39.3 | 2536 |
| I2005P1T2ICL** | 20P | 0.5 | 31.6 | 1468 |
| I2075P1T2ICL** | 20P | 0.75 | 33.8 | 1695 |
| I2010P1T2ICL** | 20P | 1 | 33.7 | 1812 |
| I2015P1T2ICL** | 20P | 1.5 | 39.3 | 2450 |
| I2025P1T2ICL** | 20P | 2.5 | 43.7 | 3043 |
| I3005P1T2ICL** | 30P | 0.5 | 36.4 | 1862 |
| I3075P1T2ICL** | 30P | 0.75 | 39.7 | 2382 |
| I3010P1T2ICL** | 30P | 1 | 39.6 | 2558 |
| I3015P1T2ICL** | 30P | 1.5 | 45.2 | 3197 |
| I3025P1T2ICL** | 30P | 2.5 | 51.6 | 4032 |

* Designates the sheath colour. For each Eland Cables part number replace with the colour code e.g. I0105P1T2CLBL = 0.5mm² Blue

P = Pairs

## CONDUCTORS

| NOMINAL CROSS SECTIONAL AREA mm² | 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 |



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## ELECTRICAL CHARACTERISTICS

| NOMINAL CROSS SECTIONAL AREA mm² | MAXIMUM MUTUAL CAPACITANCE pF/m | MINIMUM INSULATION RESISTANCE AT 20°C mohms/km | MAXIMUM L/R RATIO µH/ohms |
|---|---|---|---|
| | Cables with Individually Screened Pairs | | |
| 0.5 | 115 | >25 | 25 |
| 0.75 | 115 | >25 | 25 |
| 1 | 115 | >25 | 25 |
| 1.5 | 120 | >25 | 40 |
| 2.5 | 120 | >25 | 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 |
| 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 |

| PAIR NO. | A WIRE | B WIRE |
|---|---|---|
| 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





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