BS 5308 Part 1 Type 2 MICA / XLPE / ICAM / LSZH / SWA / LSZH (Fire Resistant) Cable

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 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. Suitable for fire resistant installations. Individually screened for enhanced signal security.

CHARACTERISTICS

Voltage Rating Uo/U
300/500V

Operating Temperature
Fixed: -40ºC to +80ºC
Flexed: 0ºC to +50ºC

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
MICA Tape + XLPE (Cross-Linked Polyethylene)

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

Drain Wire
Tinned copper

Inner Sheath
LSZH (Low Smoke Zero Halogen)

Armour
SWA (Galvanised steel wires)

Sheath
LSZH (Low Smoke Zero Halogen)

Sheath Colour
● Red ● Black ● Blue

STANDARDS

BS/PAS 5308, BS EN 60228, BS EN/IEC 61034-2, BS EN 60754-1/2

Flame Retardant according to BS EN/IEC 60332-1-2, BS EN/IEC 60332-3-22, BS EN/IEC 60332-3-24, BS EN 60331-21

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.

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 and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.
## DIMENSIONS

<table>
<thead>
<tr>
<th>ELAND PART NO.</th>
<th>NO. OF PAIRS</th>
<th>NOMINAL CROSS SECTIONAL AREA mm²</th>
<th>NOMINAL OVERALL DIAMETER mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFRP1T2IL**0205</td>
<td>2P</td>
<td>0.5</td>
<td>16</td>
</tr>
<tr>
<td>IFRP1T2IL**0275</td>
<td>2P</td>
<td>0.75</td>
<td>17.2</td>
</tr>
<tr>
<td>IFRP1T2IL**0210</td>
<td>2P</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>IFRP1T2IL**0215</td>
<td>2P</td>
<td>1.5</td>
<td>18.7</td>
</tr>
<tr>
<td>IFRP1T2IL**0225</td>
<td>2P</td>
<td>2.5</td>
<td>20.9</td>
</tr>
<tr>
<td>IFRP1T2IL**0505</td>
<td>5P</td>
<td>0.5</td>
<td>20.4</td>
</tr>
<tr>
<td>IFRP1T2IL**0575</td>
<td>5P</td>
<td>0.75</td>
<td>21.5</td>
</tr>
<tr>
<td>IFRP1T2IL**0510</td>
<td>5P</td>
<td>1</td>
<td>21.3</td>
</tr>
<tr>
<td>IFRP1T2IL**0515</td>
<td>5P</td>
<td>1.5</td>
<td>24</td>
</tr>
<tr>
<td>IFRP1T2IL**0525</td>
<td>5P</td>
<td>2.5</td>
<td>27.2</td>
</tr>
<tr>
<td>IFRP1T2IL**1005</td>
<td>10P</td>
<td>0.5</td>
<td>28.1</td>
</tr>
<tr>
<td>IFRP1T2IL**1075</td>
<td>10P</td>
<td>0.75</td>
<td>30</td>
</tr>
<tr>
<td>IFRP1T2IL**1010</td>
<td>10P</td>
<td>1</td>
<td>29.6</td>
</tr>
<tr>
<td>IFRP1T2IL**1015</td>
<td>10P</td>
<td>1.5</td>
<td>34.2</td>
</tr>
<tr>
<td>IFRP1T2IL**1025</td>
<td>10P</td>
<td>2.5</td>
<td>36.9</td>
</tr>
<tr>
<td>IFRP1T2IL**1505</td>
<td>15P</td>
<td>0.5</td>
<td>31.5</td>
</tr>
<tr>
<td>IFRP1T2IL**1575</td>
<td>15P</td>
<td>0.75</td>
<td>34.6</td>
</tr>
<tr>
<td>IFRP1T2IL**1510</td>
<td>15P</td>
<td>1</td>
<td>34.2</td>
</tr>
<tr>
<td>IFRP1T2IL**1515</td>
<td>15P</td>
<td>1.5</td>
<td>38.2</td>
</tr>
<tr>
<td>IFRP1T2IL**1525</td>
<td>15P</td>
<td>2.5</td>
<td>41.8</td>
</tr>
<tr>
<td>IFRP1T2IL**2005</td>
<td>20P</td>
<td>0.5</td>
<td>35.7</td>
</tr>
<tr>
<td>IFRP1T2IL**2075</td>
<td>20P</td>
<td>0.75</td>
<td>38</td>
</tr>
<tr>
<td>IFRP1T2IL**2010</td>
<td>20P</td>
<td>1</td>
<td>37.5</td>
</tr>
<tr>
<td>IFRP1T2IL**2015</td>
<td>20P</td>
<td>1.5</td>
<td>42.5</td>
</tr>
<tr>
<td>IFRP1T2IL**2025</td>
<td>20P</td>
<td>2.5</td>
<td>46.1</td>
</tr>
<tr>
<td>IFRP1T2IL**3005</td>
<td>30P</td>
<td>0.5</td>
<td>40.9</td>
</tr>
<tr>
<td>IFRP1T2IL**3075</td>
<td>30P</td>
<td>0.75</td>
<td>43.6</td>
</tr>
<tr>
<td>IFRP1T2IL**3010</td>
<td>30P</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td>IFRP1T2IL**3015</td>
<td>30P</td>
<td>1.5</td>
<td>49.5</td>
</tr>
<tr>
<td>IFRP1T2IL**3025</td>
<td>30P</td>
<td>2.5</td>
<td>54</td>
</tr>
</tbody>
</table>

P = Pairs

* Designates the sheath colour. For each Eland Cables part number replace with the colour code as below. e.g. IFRP1T2ILRD0205 = 0.5mm² Red

## COLOUR CODES

<table>
<thead>
<tr>
<th>COLOUR</th>
<th>Blue</th>
<th>Black</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE</td>
<td>BL</td>
<td>BK</td>
<td>RD</td>
</tr>
</tbody>
</table>
## CONDUCTORS

<table>
<thead>
<tr>
<th>Nominal Cross Sectional Area (mm²)</th>
<th>Conductor Class</th>
<th>Maximum DC Resistance of Conductor at 20°C (ohms/km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>5</td>
<td>39</td>
</tr>
<tr>
<td>0.75</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>18.1</td>
</tr>
<tr>
<td>1.5</td>
<td>2</td>
<td>12.1</td>
</tr>
<tr>
<td>2.5</td>
<td>2</td>
<td>7.41</td>
</tr>
</tbody>
</table>

## ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Nominal Cross Sectional Area (mm²)</th>
<th>Maximum Mutual Capacitance (μF/m)</th>
<th>Minimum Insulation Resistance at 20°C (mohms/km)</th>
<th>Maximum L/R Ratio (μH/ohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cables with Individually Screened Pairs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>115</td>
<td>&gt;5</td>
<td>25</td>
</tr>
<tr>
<td>0.75</td>
<td>115</td>
<td>&gt;5</td>
<td>25</td>
</tr>
<tr>
<td>1</td>
<td>115</td>
<td>&gt;5</td>
<td>25</td>
</tr>
<tr>
<td>1.5</td>
<td>120</td>
<td>&gt;5</td>
<td>40</td>
</tr>
<tr>
<td>2.5</td>
<td>120</td>
<td>&gt;5</td>
<td>65</td>
</tr>
</tbody>
</table>

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.