Profinet PUR Cable

Eland Product Group: A8P

APPLICATION
A flexible fieldbus cable for fixed or dynamic applications, suitable for profinet Type B applications. It has a quad (2 pairs) construction with high levels of shielding efficiency and offers excellent electrical transmissive performance as required from the profinet and Cat5E specifications.

CHARACTERISTICS

Voltage Rating
300V

Temperature Rating
Fixed: -40°C to +80°C
Flexed: -20°C to +60°C

Minimum Bending Radius
Fixed: 6 x overall diameter
Flexed: 12 x overall diameter

CONSTRUCTION

Conductor
Stranded copper conductor

Insulation
Solid PE (polyethylene)

Separation
PET (Polyester Tape)

Inner Sheath
HF (Halogen free)

Shield
Al/PET (Aluminium/Polyester Tape)

Overall Shield
TCWB (Tinned Copper Wire Braid)

Sheath
PUR (Polyurethane)

Core Identification
- White
- Yellow
- Blue
- Orange

Outer Sheath Colour
- Green

STANDARDS

BS EN IEC 61158, UL 1581, VDE 282/10, VDE 0472-265, NEK 606, BS EN 60754-1/2

Flame Retardant according to BS EN/IEC 60332-1-2

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 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 CORES</th>
<th>NOMINAL OVERALL DIAMETER (mm)</th>
<th>NOMINAL WEIGHT (kg/km)</th>
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</thead>
<tbody>
<tr>
<td>A8P-PN PUR</td>
<td>4</td>
<td>6.6</td>
<td>70</td>
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</tbody>
</table>

### ELECTRICAL CHARACTERISTICS

**Electrical and Transmission Properties at 20°C**

<table>
<thead>
<tr>
<th>MAXIMUM DC RESISTANCE OF CONDUCTOR (ohms/km)</th>
<th>MUTUAL CAPACITANCE AT 1kHz (μF/km)</th>
<th>MAXIMUM CAPACITANCE UNBALANCE (μF/km)</th>
<th>MAXIMUM RESISTANCE UNBALANCE (%)</th>
<th>NOMINAL VELOCITY OF PROPAGATION AT 1MHz (m/μs)</th>
<th>CHARACTERISTIC IMPEDANCE (ohm)</th>
<th>MAXIMUM PROPAGATION DELAY AT 100MHz (ns/100m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>52</td>
<td>1600</td>
<td>3</td>
<td>3</td>
<td>100</td>
<td>510</td>
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</table>

**MAXIMUM DELAY SKEW AT 100MHz (ns/100m)**

<table>
<thead>
<tr>
<th>SCREENING ATTENUATION (dB)</th>
<th>COUPLING ATTENUATION (dB)</th>
<th>TRANSFER IMPEDANCE (mohms/m)</th>
<th>MINIMUM INSULATION RESISTANCE (Gohms/km)</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>Above 60</td>
<td>50</td>
<td>15</td>
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**FREQUENCY MHz**

<table>
<thead>
<tr>
<th>ATTENUATION (db/100m)</th>
<th>NEXT (dB)</th>
<th>EL-FEXT (db/100m)</th>
<th>ACR (db/100m)</th>
<th>RETURN LOSS (dB)</th>
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<tbody>
<tr>
<td>1</td>
<td>2.1</td>
<td>1.7</td>
<td>65.3</td>
<td>85</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>3.4</td>
<td>56.3</td>
<td>75</td>
</tr>
<tr>
<td>10</td>
<td>6.3</td>
<td>5.5</td>
<td>50.3</td>
<td>68</td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td>7.2</td>
<td>47.2</td>
<td>64</td>
</tr>
<tr>
<td>20</td>
<td>9</td>
<td>8.2</td>
<td>45.8</td>
<td>62</td>
</tr>
<tr>
<td>31.25</td>
<td>11.4</td>
<td>10.5</td>
<td>42.9</td>
<td>60</td>
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<tr>
<td>62.5</td>
<td>16.5</td>
<td>15.4</td>
<td>38.4</td>
<td>52</td>
</tr>
<tr>
<td>100</td>
<td>21.3</td>
<td>20</td>
<td>35.3</td>
<td>48</td>
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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.