Profibus DP LSZH SWB Cable

Eland Product Group: A8P

APPLICATION
A 2 pair LSZH (Low Smoke Zero Halogen) Profibus DP cable with a steel wire braid for additional mechanical support. For use on process and fieldbus communications.

CONSTRUCTION
Conductor
Class 1 solid copper conductor

Insulation
Foam-skin PE (Polyethylene)

Separation
PET (Polyester Tape)

Filler
HFFR (Halogen Free Flame Retardant) compound

Shield 1
AL/PET (Aluminium/Polyester Tape)

Shield 2
TCWB (Tinned Copper Wire Braid)

Inner Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

Armour
GSWB (Galvanized Steel Wire Braid)

Outer Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

CHARACTERISTICS
Voltage Rating
300V (not for power purposes)

Temperature Rating
Fixed: -40°C to +80°C

Minimum Bending Radius
Fixed: 10 x overall diameter

Core Identification
● Green ● Red

Inner Sheath
● Violet

Outer Sheath Colour
● Black

CABLE STANDARDS
BS EN/IEC 61158, BS EN 50170, BS EN/IEC 60332-1, BS EN/IEC 61034-2, BS EN/IEC 60754-1

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.

Eland Product Group: A8P

APPLICATION
A 2 pair LSZH (Low Smoke Zero Halogen) Profibus DP cable with a steel wire braid for additional mechanical support. For use on process and fieldbus communications.

CONSTRUCTION
Conductor
Class 1 solid copper conductor

Insulation
Foam-skin PE (Polyethylene)

Separation
PET (Polyester Tape)

Filler
HFFR (Halogen Free Flame Retardant) compound

Shield 1
AL/PET (Aluminium/Polyester Tape)

Shield 2
TCWB (Tinned Copper Wire Braid)

Inner Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

Armour
GSWB (Galvanized Steel Wire Braid)

Outer Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

CHARACTERISTICS
Voltage Rating
300V (not for power purposes)

Temperature Rating
Fixed: -40°C to +80°C

Minimum Bending Radius
Fixed: 10 x overall diameter

Core Identification
● Green ● Red

Inner Sheath
● Violet

Outer Sheath Colour
● Black

CABLE STANDARDS
BS EN/IEC 61158, BS EN 50170, BS EN/IEC 60332-1, BS EN/IEC 61034-2, BS EN/IEC 60754-1

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.

Eland Product Group: A8P

APPLICATION
A 2 pair LSZH (Low Smoke Zero Halogen) Profibus DP cable with a steel wire braid for additional mechanical support. For use on process and fieldbus communications.

CONSTRUCTION
Conductor
Class 1 solid copper conductor

Insulation
Foam-skin PE (Polyethylene)

Separation
PET (Polyester Tape)

Filler
HFFR (Halogen Free Flame Retardant) compound

Shield 1
AL/PET (Aluminium/Polyester Tape)

Shield 2
TCWB (Tinned Copper Wire Braid)

Inner Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

Armour
GSWB (Galvanized Steel Wire Braid)

Outer Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

CHARACTERISTICS
Voltage Rating
300V (not for power purposes)

Temperature Rating
Fixed: -40°C to +80°C

Minimum Bending Radius
Fixed: 10 x overall diameter

Core Identification
● Green ● Red

Inner Sheath
● Violet

Outer Sheath Colour
● Black

CABLE STANDARDS
BS EN/IEC 61158, BS EN 50170, BS EN/IEC 60332-1, BS EN/IEC 61034-2, BS EN/IEC 60754-1

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.

Eland Product Group: A8P

APPLICATION
A 2 pair LSZH (Low Smoke Zero Halogen) Profibus DP cable with a steel wire braid for additional mechanical support. For use on process and fieldbus communications.

CONSTRUCTION
Conductor
Class 1 solid copper conductor

Insulation
Foam-skin PE (Polyethylene)

Separation
PET (Polyester Tape)

Filler
HFFR (Halogen Free Flame Retardant) compound

Shield 1
AL/PET (Aluminium/Polyester Tape)

Shield 2
TCWB (Tinned Copper Wire Braid)

Inner Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

Armour
GSWB (Galvanized Steel Wire Braid)

Outer Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

CHARACTERISTICS
Voltage Rating
300V (not for power purposes)

Temperature Rating
Fixed: -40°C to +80°C

Minimum Bending Radius
Fixed: 10 x overall diameter

Core Identification
● Green ● Red

Inner Sheath
● Violet

Outer Sheath Colour
● Black

CABLE STANDARDS
BS EN/IEC 61158, BS EN 50170, BS EN/IEC 60332-1, BS EN/IEC 61034-2, BS EN/IEC 60754-1

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.

Eland Product Group: A8P

APPLICATION
A 2 pair LSZH (Low Smoke Zero Halogen) Profibus DP cable with a steel wire braid for additional mechanical support. For use on process and fieldbus communications.

CONSTRUCTION
Conductor
Class 1 solid copper conductor

Insulation
Foam-skin PE (Polyethylene)

Separation
PET (Polyester Tape)

Filler
HFFR (Halogen Free Flame Retardant) compound

Shield 1
AL/PET (Aluminium/Polyester Tape)

Shield 2
TCWB (Tinned Copper Wire Braid)

Inner Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

Armour
GSWB (Galvanized Steel Wire Braid)

Outer Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

CHARACTERISTICS
Voltage Rating
300V (not for power purposes)

Temperature Rating
Fixed: -40°C to +80°C

Minimum Bending Radius
Fixed: 10 x overall diameter

Core Identification
● Green ● Red

Inner Sheath
● Violet

Outer Sheath Colour
● Black

CABLE STANDARDS
BS EN/IEC 61158, BS EN 50170, BS EN/IEC 60332-1, BS EN/IEC 61034-2, BS EN/IEC 60754-1

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.

Eland Product Group: A8P

APPLICATION
A 2 pair LSZH (Low Smoke Zero Halogen) Profibus DP cable with a steel wire braid for additional mechanical support. For use on process and fieldbus communications.

CONSTRUCTION
Conductor
Class 1 solid copper conductor

Insulation
Foam-skin PE (Polyethylene)

Separation
PET (Polyester Tape)

Filler
HFFR (Halogen Free Flame Retardant) compound

Shield 1
AL/PET (Aluminium/Polyester Tape)

Shield 2
TCWB (Tinned Copper Wire Braid)

Inner Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

Armour
GSWB (Galvanized Steel Wire Braid)

Outer Sheath
FRNC-LSZH (Flame Retardant Non Corrosive - Low Smoke Zero Halogen)

CHARACTERISTICS
Voltage Rating
300V (not for power purposes)

Temperature Rating
Fixed: -40°C to +80°C

Minimum Bending Radius
Fixed: 10 x overall diameter

Core Identification
● Green ● Red

Inner Sheath
● Violet

Outer Sheath Colour
● Black

CABLE STANDARDS
BS EN/IEC 61158, BS EN 50170, BS EN/IEC 60332-1, BS EN/IEC 61034-2, BS EN/IEC 60754-1

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.
### DIMENSIONS

<table>
<thead>
<tr>
<th>ELAND PART NO.</th>
<th>NO. OF PAIRS</th>
<th>DIAMETER OF CONDUCTOR mm</th>
<th>NOMINAL OVERALL DIAMETER mm</th>
<th>NOMINAL WEIGHT kg/km</th>
</tr>
</thead>
<tbody>
<tr>
<td>A8P-DPLSZHSWB</td>
<td>1</td>
<td>0.64</td>
<td>11.2</td>
<td>175</td>
</tr>
</tbody>
</table>

### ELECTRICAL CHARACTERISTICS

Electrical and Transmission Properties at 20°C

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum DC Resistance of Conductor</td>
<td>57.5 ohms/km</td>
</tr>
<tr>
<td>Capacitance at 800 Hz</td>
<td>29 nF/km</td>
</tr>
<tr>
<td>Impedance (above 1 MHz)</td>
<td>150 ohms (±10%)</td>
</tr>
<tr>
<td>Attenuation at 9.6 kHz</td>
<td>0.3 dB/100m</td>
</tr>
<tr>
<td>Attenuation at 38.4 kHz</td>
<td>0.5 dB/100m</td>
</tr>
<tr>
<td>Attenuation at 4 MHz</td>
<td>2.1 dB/100m</td>
</tr>
<tr>
<td>Attenuation at 16 MHz</td>
<td>4.0 dB/100m</td>
</tr>
<tr>
<td>Dielectric Strength (Conductor/Conductor)</td>
<td>1.5 kV/1 min</td>
</tr>
<tr>
<td>Dielectric Strength (Conductor/Shield)</td>
<td>1.5 kV/1 min</td>
</tr>
<tr>
<td>Minimum Insulation Resistance</td>
<td>5.0 Gohms/km</td>
</tr>
<tr>
<td>Transfer Impedance at 10 MHz</td>
<td>10 mohms/m</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.