

# PRODUCT INFORMATION

# **UNITRONIC® BUS PB TORSION**

Flame retardant, highly flexible PROFIBUS cable for torsion load

Bus cable for PROFIBUS-DP, -FMS and FIP. For torsional stress, e.g. robot  $\pm$  180° per 1 m, halogen free, flame ratardant. Temp. Range from -25°C bis 75°C





Halogen-free

LAPP KABEL STUTIGART UNITRONIC<sup>®</sup> BUS PB TORSION



### Torsion-resistant

### Benefits

For use where the combination of a halogen-free outer sheath with properties similar to PUR and enhanced flame-retardance is required

Cables can be used for PROFIBUS-DP as well as PROFIBUS-FMS and FIP

#### Application range

PROFIBUS DP (in accordance with DIN 19245 and EN 50170, e.g. for SIEMENS SIMATIC® NET, also suitable for FIP - Factory Instrumentation Protocol).

#### **Product features**

TORSION: for torsional stress, e.g. robot application; ± 180° per 1 m Halogen-free Flame-retardant according IEC 60332-1-2 Based on the bit rates listed, in accordance with PNO specifications the following maximum cable lengths for a bus segment apply (cable type A, PROFIBUS-DP): 93.75 kbit/s = 1200 m 187.5 kbit/s = 1000 m 500 kbit/s = 400 m 1.5 Mbit/s = 200 m 12.0 Mbit/s = 100 m

#### Norm references / Approvals

Last Update (16.12.2022) ©2022 Lapp Group - Technical changes reserved Product Management www.lappkabel.de You can find the current technical data in the corresponding data sheet. PN 0456 / 02\_03.16



# **UNITRONIC® BUS PB TORSION**

Certification: UL type CMX in accordance with UL 444

### **Product Make-up**

Stranded bare copper wire Core insulation: PE Overall screening with copper braid and plastic-laminated aluminium foil Outer sheath: PUR, violet (RAL 4001)

## **Technical Data**

| Technical Data                                    |  |  |  |
|---|--|--|--|
| Classification ETIM 5:                            | ETIM 5.0 Class-ID: EC000830<br>ETIM 5.0 Class-Description: Data cable  |  |  |
| Classification ETIM 6:                            | ETIM 6.0 Class-ID: EC000830<br>ETIM 6.0 Class-Description: Data cable  |  |  |
| Mutual capacitance:                               | (800 Hz): max. 30 nF/km  |  |  |
| Peak operating voltage:                           | (not for power applications)<br>300 V                                  |  |  |
| Torsion movement in WTG (wind turbine generator): | Max. torsion load<br>± 180°/m  |  |  |
| Minimum bending radius:                           | Fixed installation: 4 x outer diameter<br>Flexing: 15 x outer diameter |  |  |
| Test voltage:                                     | 3600 V DC (3 sec.)   |  |  |
| Characteristic impedance:                         | 150 ± 15 Ohm   |  |  |
| Temperature range:                                | Operating temperature: -25°C to 75°C<br>Storage temp.: -40°C to 80°C   |  |  |

#### Note

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths

Packaging size: coil  $\leq$  30 kg or  $\leq$  250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).

SIMATIC® is a registered trademark of SIEMENS AG. FIP is a registered trademark of World FIP

Lapp Kabel is a member of the PROFIBUS user organisation (PNO)

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Prices are net prices without VAT and surcharges. Sale to business customers only.

| Ist Up   | Article number              | J J J J J J J J J J J J J J J J J J J |              | Dimension and cross section in mm2 | Outer diameter [mm] | Copper index [kg/km] | Weight [kg/km] |
|----------|-----------------------------|---------------------------------------|--------------|------------------------------------|---------------------|----------------------|----------------|
|          | Highly flexible application |                                       |              |                                    |                     |                      |                |
| te (16.1 | 2170332                     | UNITRONIC® BUS PB<br>TORSION          | 1 x 2 x 0.38 | 1 x 2 x 0.38                       | 8                   | 31                   | 66             |

**& LAPP**