

## 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  $\pm 180^\circ$  per 1 m, halogen free, flame retardant. Temp. Range from  $-25^\circ\text{C}$  bis  $75^\circ\text{C}$



Halogen-free



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;  $\pm 180^\circ$  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 (24.04.2024)

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Product Management [www.lappkabel.de](http://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

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

### 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](http://www.lappkabel.de/en/cable-standardlengths)

Packaging size: coil  $\leq 30 \text{ kg}$  or  $\leq 250 \text{ m}$ , 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.

**UNITRONIC® BUS PB TORSION**

Article number	Article designation	Number of cores and mm <sup>2</sup> per conductor	Dimension and cross section in mm <sup>2</sup>	Outer diameter [mm]	Copper index [kg/km]	Weight [kg/km]
Highly flexible application						
2170332	UNITRONIC® BUS PB TORSION	1 x 2 x 0.38	1 x 2 x 0.38	8	31	66