

U.I. Lapp GmbH	<b>PRODUCT INFORMATION</b>	
	<b>UNITRONIC® BUS PB FD P A</b>	<b>14.11.2013</b>

Highly flexible application

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

For highly flexible applications (power chains, moving machine parts)



Halogen-free



Oil-resistant



Power chain

#### Info

A for Advanced here: UL and CSA approvals

#### Application range

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

Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

#### Design

Stranded bare copper wire

Foam Skin - core isolation (O2YS)

Overall screening with copper braid and plastic-laminated aluminium foil

Screening: wrapped with braided tinned-copper wires

Outer sheath: PUR compound

#### Norm references / Approvals

Approval: UL/CSA type CMX in accordance with UL 444 and CSA C22.2 no. 214

#### Product features

Halogen-free

Flame-retardant according IEC 60332-1-2

Oil-resistant

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

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### Remark

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

Copper price basis: EUR 150/100kg. 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 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)

Photographs are not to scale and do not represent detailed images of the respective products.

### Technical Data

Mutual capacitance:	(800 Hz): max. 30 nF/km
Peak operating voltage:	(not for power applications) 250 V
Torsion movement in WTG:	TW-0 & TW-2, refer to Appendix T0
Minimum bending radius:	65 mm
Test voltage:	Core/core: 1500 V rms
Temperature range:	Flexing: -30°C to +70°C Fixed installation: -40°C to +80°C
Characteristic impedance:	150 $\pm$ 15 Ohm

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Part number	Article designation	Number of pairs and conductor diameter (mm)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Highly flexible application					
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