

## UNITRONIC® BUS PB FD P

Halogenfree, highly flexible PROFIBUS cable

Bus cable for PROFIBUS-DP, -FMS and FIP. Halogen free and enhanced flame retardance. Temperature range from -40 °C bis +80 °C



Halogen-free



Oil-resistant



Power chain

### Benefits

Due double screening it is suitable for installation in electromagnetically demanding areas

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

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

### 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).

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

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

### 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

Last Update (06.01.2025)

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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.

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12.0 Mbit/s = 100 m

### Product Make-up

Stranded bare copper wire

Core insulation: foam skin, (O2YS)

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) 250 V
Torsion movement in WTG (wind turbine generator):	TW-0 & TW-2, refer to Appendix T0
Minimum bending radius:	65 mm
Test voltage:	Core/core: 1500 V rms
Characteristic impedance:	150 ± 15 Ohm
Temperature range:	Flexing: -30 °C to +70 °C Fixed installation: -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](http://www.lappkabel.de/en/cable-standardlengths)

Packaging size: coil ≤ 30 kg or ≤ 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.

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Article number	Article designation	Number of pairs and conductor diameter (mm)	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
For highly flexible applications (e.g. power chains) - conventional cable assembly					
2170222	UNITRONIC® BUS PB FD P	1 x 2 x 0.64	8	30.1	64