



# UNITRONIC® BUS PB FD P A

Highly flexible application

**Info**

- A for Advanced here: UL and CSA certifications



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

### 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).
- 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  
 12.0 Mbit/s = 100 m

### Norm references / Approvals

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

### Product Make-up

- 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

### Technical data

	ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
	<b>Mutual capacitance</b> (800 Hz): max. 30 nF/km
	<b>Peak operating voltage</b> (not for power applications) 250 V
	<b>Torsion movement in WTG (wind turbine generator)</b> TW-0 & TW-2, refer to Appendix T0
	<b>Minimum bending radius</b> 65 mm
	<b>Test voltage</b> Core/core: 1500 V rms
	<b>Characteristic impedance</b> 150 ± 15 Ohm
	<b>Temperature range</b> Flexing: -30°C to +70°C Fixed installation: -40°C to +80°C

Article number	Article designation	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
2170822	UNITRONIC® BUS PB FD P A	1 x 2 x 0.64	8	30.1	58

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

### Accessories

- Sub-D Bus-Connectors