

Bus system PROFIBUS-DP/FMS/FIP • Fixed Installation











# UNITRONIC® BUS PB

PROFIBUS cables for fixed applications



- · Lapp Kabel is a member of the PROFIBUS User Organisation (PNO)
- · A for Advanced here: UL and CSA certifications
- CPR: Article number choice under www.lappkabel.com/cpr



## **Application range**

- · For fixed installation Maximum electromagnetic screening
- Dry or damp rooms
- Item nos. 2170233, 2170333, 2170820, 2170824, 2170826 are all UV-resistant

### **Product features**

- · These bus cables can be used for PROFIBUS-DP as well as for PROFIBUS-FMS and FIP
- · 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 m187.5 kbit/s = 1000 m

500 kbit/s = 400 m 1.5 Mbit/s = 200 m

12.0 Mbit/s = 100 m

## Norm references / Approvals

- · In accordance with DIN 19245 and EN 50170, e.g. for SIEMENS SIMATIC NET, also suitable for FIP (Factory Instrumentation Protocol)
- · See below for UL certification type

## Product Make-up

- · FC: Fast Connect cable design
- · P: Polyurethane H: Halogen-free
- PE: polyethylene outer sheath, black
- 7-W: 7-wire, e.g. for applications where vibrations occur
- · COMBI: Data transmission and power supply in one cable

## Technical data

cable

Classification ETIM 5/6 ETIM 5.0/6.0 Class-ID: EC000830 ETIM 5.0/6.0 Class-Description: Data

Mutual capacitance (800 Hz): max. 30 nF/km

Peak operating voltage (not for power applications) 250 V Conductor resistance

(loop): max. 186 Ohm/km. see also datasheet

Minimum bending radius Fixed installation: see data sheet

Test voltage Core/core: 1500 V rms

Characteristic impedance 150 ± 15 Ohm

Article number	Article designation	Number of pairs and conductor diameter (mm)	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
Conventional cabl	e makeup				
2170220	UNITRONIC® BUS PB	1 x 2 x 0.64	8	30.1	74
2170233	UNITRONIC® PB PE	1 x 2 x 0.64	8	30.1	57
2170226	UNITRONIC® BUS PB H 7-W	1 x 2 x 0.64	8	30.1	55
2170225	UNITRONIC® BUS PB COMBI 7-W	1 x 2 x 0,64 Ø + 3 x 1,0 mm <sup>2</sup>	9.8	59	92
Conventional cabl	e makeup - UL/CSA CMX certifica	tion			
2170219	UNITRONIC® BUS PB A	1 x 2 x 0.64	8	30.1	57
Conventional cabl	e makeup - UL/CSA CMG certifica	tion			
2170824	UNITRONIC® BUS PB 7-W A	1 x 2 x 0.64	8	30.1	55
Fast Connect					
2170333	UNITRONIC® BUS PB PE FC	1 x 2 x 0.64	8	26	67
Fast Connect - UL	/CSA CMX certification				
2170330	UNITRONIC® BUS PB P FC	1 x 2 x 0.64	8	26	71
<b>Fast Connect cabl</b>	e makeup - UL/CSA CMG certifica	tion			
2170820	UNITRONIC® BUS PB FC	1 x 2 x 0.64	8	26	84
2170826	UNITRONIC® BUS PB 7-W FC	1 x 2 x 0.64	8	26	67
2170326	UNITRONIC® BUS PB-H FC	1 x 2 x 0.64	8	26	72

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  $\le 30$  kg or  $\le 250$  m, otherwise drum

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

SIMATIC NET® is a registered trademark of Siemens AG Lapp Kabel is a member of the PROFIBUS user organisation (PNO)

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

## Similar products

- UNITRONIC® BUS PB ROBUST refer to page 330
- UNITRONIC® BUS PB 105 refer to page 331

## **Accessories**

- · Sub-D Bus-Connectors
  - FC STRIP stripping tool refer to page 960
- SENSOR STRIP stripping tool refer to page 961