**ETHERLINE®** 

# **Data communication systems**

Cables for bus systems PROFIBUS-DP/FMS/FIP

Characteristic impedance: 135 - 165 ohm















**® LAPP GROUP** 



## UNITRONIC® BUS PB

#### **Fixed installation**



- Lapp Kabel is a member of the PROFI-**BUS User Organisation (PNO)**
- A for Advanced here: UL and CSA approvals

### 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 PROFI-BUS-DP as well as for PROFIBUS-FMS and
- · 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

- 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 approval type

## Product make-up

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

### ■ Technical data

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

Peak operating voltage (not for power applications) 250 V

**Conductor resistance**  $\bigcirc$ (loop): max. 133 ohm/km

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)
For fixed installation - conventional cable assembly					
2170220	UNITRONIC® BUS PB	1 x 2 x 0.64	8.0	30.1	74
2170233	UNITRONIC® PB PE	1 x 2 x 0.64	8.0	30.1	57
2170226	UNITRONIC® BUS PB H 7-W	1 x 2 x 0.64	8.0	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	59.0	92
For fixed installation - UL/CSA CMX approval					
2170219	UNITRONIC® BUS PB A	1 x 2 x 0.64	8.0	30.1	57
For fixed installat	ion - UL/CSA CMG approval				
2170824	UNITRONIC® BUS PB 7-W A	1 x 2 x 0.64	8.0	30.1	55
For fixed installat	ion - "Fast Connect" cable assembly				
2170333	UNITRONIC® BUS PB PE FC	1 x 2 x 0.64	8.0	26.0	67
For fixed installat	ion - UL/CSA CMX approval				
2170330	UNITRONIC® BUS PB P FC	1 x 2 x 0.64	8.0	26.0	71
For fixed installation - "Fast Connect" cable assembly - UL/CSA CMG approval					
2170820	UNITRONIC® BUS PB FC	1 x 2 x 0.64	8.0	26.0	84
2170826	UNITRONIC® BUS PB 7-W FC	1 x 2 x 0.64	8.0	26.0	67
2170326	UNITRONIC® BUS PB-H FC	1 x 2 x 0.64	8.0	26.0	72

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. 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

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

Please specify the preferred type of packaging (e.g.  $1 \times 500 \text{ m}$  drum or  $5 \times 100 \text{ m}$  coils). SIMATIC NET® is a registered trademark of Siemens AG

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.

## ■ Similar products

- UNITRONIC® BUS PB ROBUST refer to page 289
- UNITRONIC® BUS PB 105 refer to page 290

## ■ Accessories

- EPIC® Data Connectors refer to page 302
- FC STRIP stripping tool refer to page 912
- SENSOR STRIP stripping tool refer to page 912