UNITRONIC® BUS PB

Cables for bus systems PROFIBUS-DP/FMS/FIP

Info

- **Lapp Kabel is a member of the PROFIBUS 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-resistantL

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 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)

Design

- 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

Norm references / Approvals
See below for UL approval type

Resistant
UV-resistant products
Item nos. 2170233, 2170333, 2170820, 2170824, 2170826 are all UV-resistant

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

Peak operating voltage
(not for power applications) 250 V

Conductor resistance
(loop): max. 133 ohm/km

Minimum bending radius
Fixed installation: see data sheet

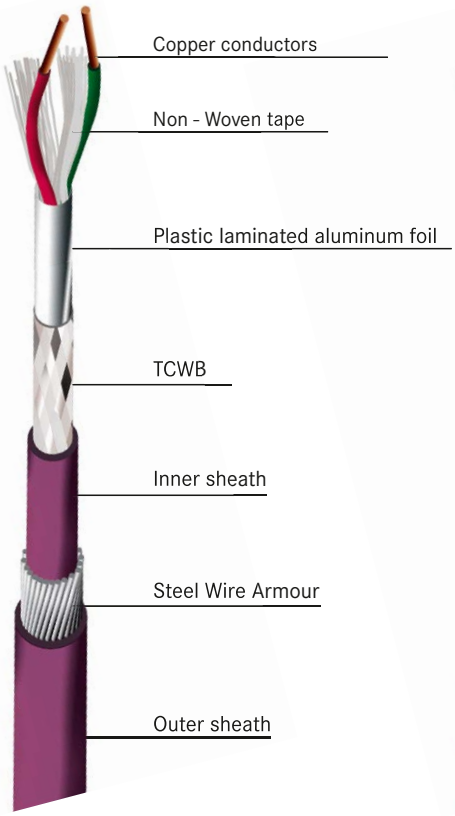
Test voltage
Core/core: 1500 V rms

Characteristic impedance
150 ± 15 Ohm

Article Number	Number of pairs and conductor diameter (mm)	Outer diameter (mm)	Copper index (kg/km)	Approx Weight (kg/km)
For fixed installation - conventional cable assembly				
2170220	1 x 2 x 0.64	8,0	30,1	74
2170233	1 x 2 x 0.64	8,0	30,1	57
2170226	1 x 2 x 0.64	8,0	30,1	55
2170225	1 x 2 x 0,64 Ø + 3 x 1,0 mm²	9,8	59,0	92
For fixed installation - UL/CSA CMX approval				
2170219	1 x 2 x 0.64	8,0	30,1	57
For fixed installation - UL/CSA CMG approval				
2170824	1 x 2 x 0.64	8,0	30,1	55
For fixed installation - “Fast Connect” cable assembly				
2170333	1 x 2 x 0.64	8,0	26,0	67
For fixed installation - UL/CSA CMX approval				
2170330	1 x 2 x 0.64	8,0	26,0	71
For fixed installation - “Fast Connect” cable assembly - UL/CSA CMG approval				
2170820	1 x 2 x 0.64	8,0	26,0	84
2170826	1 x 2 x 0.64	8,0	26,0	67
2170326	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.
Photographs are not to scale and do not represent detailed images of the respective products

AVAILABLE ALSO IN: Special armouring



UNITRONIC® ARMOUR SWA BUS PB

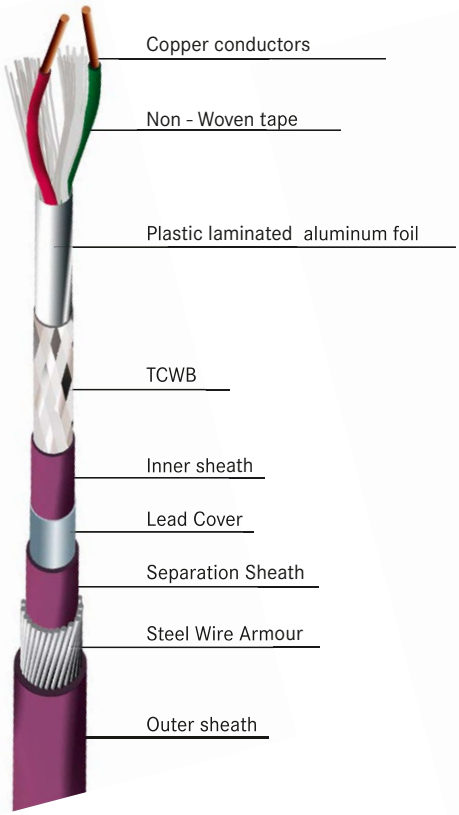
Cable for bus systems profibus - DP/FMS/FIP with steel wire armouring (SWA)

Benefits

- High mechanical protection against accidental impacts
- Excellent rodent protection
- Suitable for direct burial
- UV and water-resistant

Application range

- Heavy industrial areas
- For indoor or outdoor use
- Methods of deployment: empty plastic pipes, ducts and trays



UNITRONIC® ARMOUR SWA LEAD BUS PB

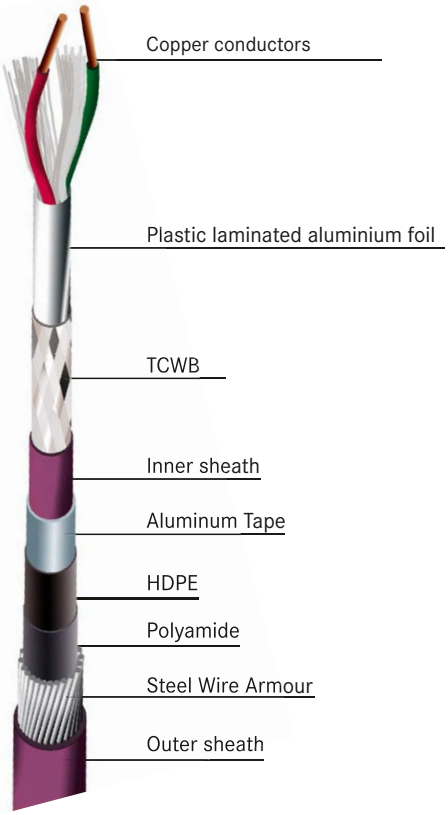
Cable for bus systems profibus - DP/FMS/FIP with extruded lead armouring for chemical protection

Benefits

- Protection against hydrocarbons and other chemicals
- Excellent rodent protection
- High mechanical protection against accidental impacts

Application range

- Harsh oil and chemical environments
- Heavy industrial areas
- For direct burial, especially in the presence of oil and aggressive chemical substances



UNITRONIC® ARMOUR SWA AL/HDPE/PA BUS PB

Cable for bus systems profibus - DP/FMS/FIP with aluminum tape and additional HDPE and PA sheaths for water and chemical protection

Benefits

- Aluminum tape acts as an barrier to prevent water penetration
- Cost-efective protection against hydrocarbons and other aggressive chemicals (EN 50288-7)
- High mechanical protection

Application range

- Harsh oil and chemical environments
- Heavy industrial areas
- For direct burial, especially in the presence of oil and aggressive chemical substances

Inner and outer sheath materials are based on the area of installation:

- For outdoors, PE or PVC is used
- For indoor use, where flame retardance is required, LSZH material is used

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