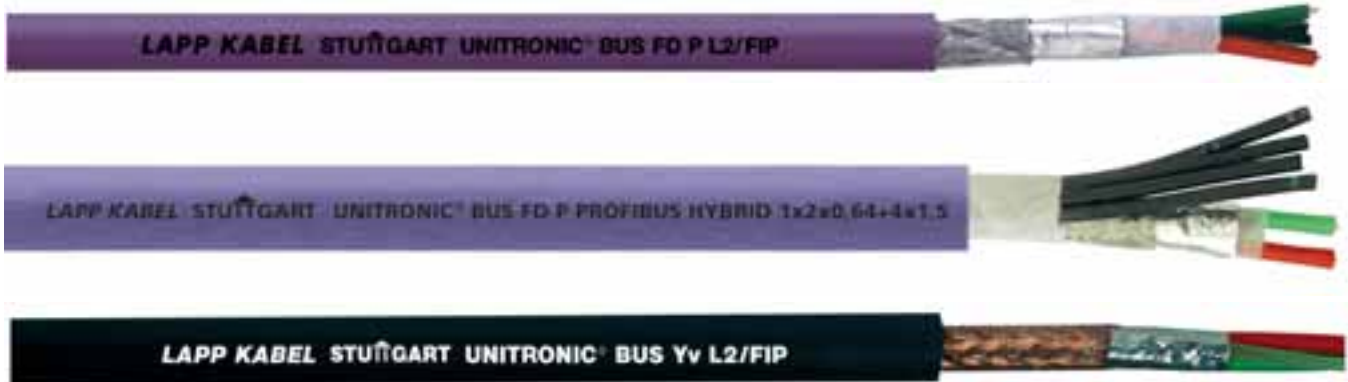


UNITRONIC® BUS FD P L2/FIP + Yv /YY L2/FIP

For highly flexible application resp. outdoor use/direct burial, UV resistant

PROFIBUS-DP/
FMS + FIP
150 Ohm +/- 15



Note

According to DIN 19245 and EN 50170 e.g. for SIEMENS SIMATIC® NET, also suited for FIP (Factory Instrumentation Protocol).
Technical data: see overview UNITRONIC® BUS cables.
The stated bitrates allow the following cable lengths (max.) of one bus segment (Type A cable):

PROFIBUS-DP (SIMATIC® NET)

9.6 kBit/s = max. 1200 m
19.2 kBit/s = max. 1200 m
93,75 kBit/s = max. 1200 m

187.5 kBit/s = max. 1000 m
500 kBit/s = max. 400 m
1,5 MBit/s = max. 200 m
12,0 MBit/s = max. 100 m

FIP

1,0 MBit/s = max. 200 m
2,5 MBit/s = max. 200 m

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

Characteristic impedance 150 Ohm +/- 15

Lapp Kabel is member of the PROFIBUS Nutzerorganisation (PNO), i.e. PROFIBUS User Organisation

Cable Make-up

Cables in table below show different cable designs.
Details: see Data Sheets.

Explanation of abbreviations and terms:

FD: for power chains and frequently moved machine parts (not for robot application!)
P: for Polyurethane outer sheath
COMBI: for data transmission and power supply

TORSION: for torsional stress, e. g. a robot application
FESTOON: for cable trolley (festoon)
FD P HYBRID: highly flexible, Polyurethane outer sheath, 1 pair data transmission, 4 cores for power supply
YY: double PVC outer sheath
Yv: enhanced PVC outer sheath
BURIAL: for outdoor use/black outer sheath/UV resistant



Technical Data

Minimum bending radius for please see Data Sheet

Temperature range: please see Data Sheet

Conductor resistance: please see Data Sheet

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

Characteristic Impedance: 150 +/- 15 Ohm

Peak working voltage: (not for power purpose) 250 V

Test voltage: conductor/conductor: 1500 V

Part number	Type	No. of pairs and mm ² per conductor	Approx. outside diameter	Copper weight kg/km	Approx. weight kg/km
for highly flexible application (power chains etc.) - Conventional cable design					
2170 222	UNITRONIC® BUS FD P L2/FIP	1 x 2 x 0.64 Ø	max. 8,0	30,1	64,0
2170 227	UNITRONIC® BUS FD P COMBI L2/FIP	1 x 2 x 0.64 Ø + 3 x 1.0 mm ²	max. 10,1	49,0	93,0
2170 332	UNITRONIC® BUS L2/FIP Torsion UL/CSA (CMX)	1 x 2 x 0.8 Ø	max. 8,0	30,1	66,0
2170 331	UNITRONIC® BUS L2/FIP Festoon UL/CSA (CMG)	1 x 2 x 0.64 Ø	max. 8,0	30,1	60,0
2170 495	UNITRONIC® FD P PROFIBUS HYBRID	1 x 2 x 0.64 Ø + 4 x 1.5 mm ²	max. 11,0	89,0	148,0
2170 875	UNITRONIC® FD P PROFIBUS HYBRID UL/CSA (CMG)	1 x 2 x 0.64 Ø + 4 x 1.5 mm ²	max. 11,0	89,0	155,0
for highly flexible application (power chains etc.) - "Fast Connect" cable design					
2170 322	UNITRONIC® BUS FD P L2/FIP FC UL/CSA (CMX)	1 x 2 x 0.64 Ø	max. 8,0	30,1	72,0
for outdoor use / direct burial - UV resistant - Conventional cable design					
2170 223	UNITRONIC® BUS Yv L2/FIP	1 x 2 x 0.64 Ø	approx. 10,0	30,1	87,0
2170 236	UNITRONIC® BUS YY L2/FIP	1 x 2 x 0.64 Ø	approx. 10,0	30,1	87,0
for outdoor use / direct burial - UV resistant - "Fast Connect" cable design					
2170 323	UNITRONIC® BUS L2/FIP BURIAL FC	1 x 2 x 0.64 Ø	approx. 10,8	30,1	115,0

No cutting charge for standard stock units (100, 500, 1000 m).
Please state desired Cable Packing Unit (e.g. 1 x 500m drum or 5 x 100m coils).
Coils < 30 kg, beyond automatically drums.
Copper basis: 150,- Euro/100 kg

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