
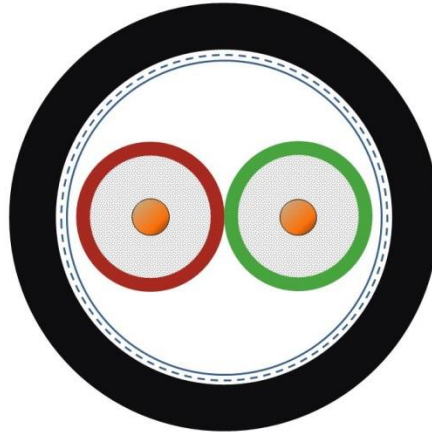


2170233	<b>DATA SHEET</b>	
valid from: 01.01.2019	<b>UNITRONIC® BUS PB PE</b> <b>1 x 2 x 0,64</b>	

## Application

UNITRONIC® BUS L2/FIP is a data cable for the SIEMENS network SIMATIC NET (acc. to DIN 19245 part 3 and EN 50170), for fieldbus system FIP (Factory Instrumentation Protocol) as well as for high performance data networks with 150 Ohms nominal impedance. The cable is designed for the system-defined transmission rates of 1.5 MBit/s, 2.5 MBit/s and 12 MBit/s, the transmission characteristics conform to the system and guarantee a high operating security during data transmission. It is suitable for interfaces RS 422 and RS 485. The sheath of Polyethylene is not flame retardant, but physiologically recognized as safe, therefore the cable is only suitable for the use in the field of food and beverage interiors. The cable is intended for permanent installation in dry and damp. Due to its double screening it is suitable for installation in electromagnetically demanding areas.

## Design




Conductor	single wire of bare copper, 0.64mm <sup>2</sup>
Insulation	foam-skin PE (02YS); core diameter approx 2.5mm
Core identification code	cores red and green
Stranding	2 cores together with 2 fillers (core-filler-core-filler) mylar wrap
Screen	aluminium-mylar tape wrap, metal-side outwards, on top a bare-copper wire braid
Outer sheath	PE, black, OD max. 7.8 mm

## Electrical properties at 20°C

Loop resistance	max. 115 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	800 Hz: max. 30 nF/km
Characteristic impedance	9,6 kHz: 270 Ω ± 27 Ω 38,4 kHz: 185 Ω ± 18 Ω 3 up to 20 Mhz: 150 Ω ± 15 Ω
Attenuation	9,6 kHz max. dB/100m 0,25 38,4 kHz max. dB/100m 0,4 4 MHz max. dB/100m 2,2 16 MHz max. dB/100m 4,2
Velocity of propagation	nom. 0,81c
Transfer impedance	20 MHz: max. 10 mΩ/m
Test voltage	conductor/conductor 1500 V conductor/screen 1500 V

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### Mechanical and thermal properties

Minimum bending radius	single bending 75 mm multiple bending 150 mm
Temperature range	static -40° C up to +80° C flexibel -5° C up to +50° C
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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