
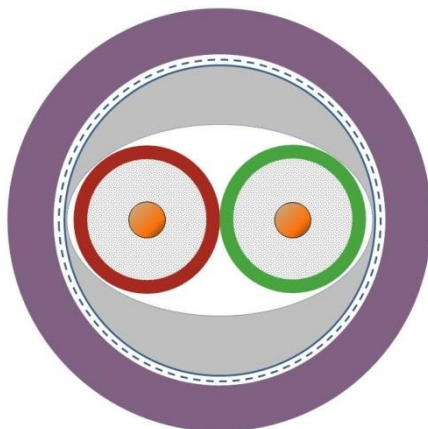


2170820	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS PB FC 1X2X0,64 1X2X0,64	

Application

Flame retardant data cable for the fieldbus system PROFIBUS DP and PROFIBUS FMS (Siemens SIMATIC NET). The cable is for applications with fixed installation and has got a "fast connect" design. It is designed for the system-defined transmission rates of 9.6 Kbit/s up to 12 Mbit/s, the transmission characteristics are conform to the system and guarantee a high operating security during the data transmission. The cable is designed for applications in dry and damp interiors, outdoors and in rough industrial environment.

Design




Certification	c(UL)us CMG 75 °C acc. to UL 444; (UL) CL3 acc. to UL 13
Conductor	bare copper wire, ca. 0,64 mm Ø
Insulation	foam skin polyolefin, core Ø ca. 2.55 mm
Core identification code	a-core red, b-core green
Stranding	two cores twisted to pair
Inner sheath	PVC, outer diameter ca. 5,5 mm
Screen	aluminized foil on top: braid of tinned copper wires, coverage ca. 60 %
Taping	plastic tape
Outer sheath	PVC compound, violet (similar to RAL 4001), outer diameter: ca. 8.0 mm

Electrical properties at 20°C

Loop resistance	max. 110 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	ca. 30 nF/km (at 1 kHz)
Characteristic impedance	9.6 kHz: 270 Ω ± 27 Ω 38.4 kHz: 185 Ω ± 18.5 Ω 3 up to 20 Mhz: 150 Ω ± 15 Ω
Attenuation	9.6 kHz: max. 0.25 dB/100 m 38.4 kHz: max. 0.4 dB/100 m 4 MHz: max. 2.2 dB/100 m 16 MHz: max. 4.2 dB/100 m
Test voltage	conductor/conductor 2000 V conductor/screen 2000 V

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Mechanical and thermal properties

Minimum bending radius	Minimum bending radius 8 x outer diameter
Temperature range	from -40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-3-24, FT4 (vertical tray) acc. to UL 1685
UV resistance	sunlight resistant acc. to UL 1581 Sec. 1200
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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