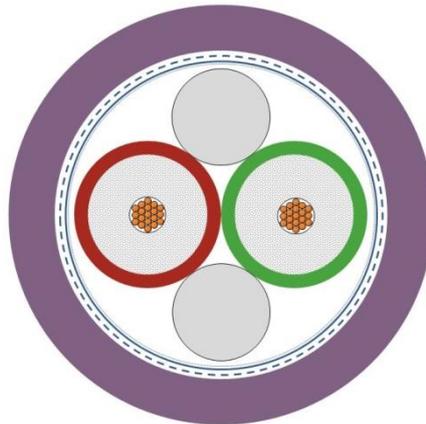


2170331	DATA SHEET	
valid from: 12.05.2020	UNITRONIC® BUS PB FESTOON	

Application

UNITRONIC® BUS PB FESTOON is a flexible and flame retardant data cable for the following field bus systems: PROFIBUS DP, PROFIBUS FMS (Siemens SIMATIC NET) acc. to EN 61158-2 cable type A, and for field bus 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 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.

Design



Certification	UL PLTC acc. to UL 13 UL CMG 75 °C acc. to UL 444
Conductor	fine-wire strands bare copper conductor Ø 0.64 mm
Insulation	Skin-Foam-Skin PE core ø approx. 2.6 mm
Core identification code	red and green
Stranding	two cores twisted to a pair, with fillers on top: plastic tape (overlapping)
Screen	plastic laminated aluminium foil (overlapping) on top: braid of tinned copper wires (coverage approx. 70 %)
Outer sheath	PVC violet, similar RAL 4001 outer Ø: 8.0 mm (± 0.3 mm)

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Electrical properties at 20°C

Loop resistance	max. 133 Ω/km
Specific volume resistivity	min. 16000 MΩ*km
Mutual capacitance	nom. 28 nF/km (at 800 Hz)
Inductance	750 μH/km
Characteristic impedance	9.6 kHz: 270 Ω ± 27 Ω 38.4 kHz: 185 Ω ± 18.5 Ω 3 bis 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 200 kHz: max. 0.9 dB/100 m 4 MHz: max. 2.2 dB/100 m 16 MHz: max. 4.2 dB/100 m
Velocity of propagation	0,81 c
Peak operating voltage	VDE: 250 V (not for power purposes) UL: 600 V
Test voltage	core/core: 2000 V core/screening: 2000 V

Mechanical and thermal properties

Minimum bending radius	fixed installation: 5 x cable Ø continuous flexing: 10 x cable Ø
Temperature range	fixed installation: -40 °C bis +80 °C continuous flexing: -30 °C bis +70 °C
Flammability	FT 4 acc. to UL 1685
UV resistance	SUN RES acc. to UL 1581 §1200
Oil resistance	OIL RES acc. To UL 758 §15 (60 °C)
General requirements	RoHS: All homogeneous materials of all articles must not contain the substances of Annex II of the European Directive 2011/65/EU (RoHS) in excess of the concentration limits listed therein. Exemptions are allowable for the applications listed in Annexes III and IV of the same Directive.
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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