
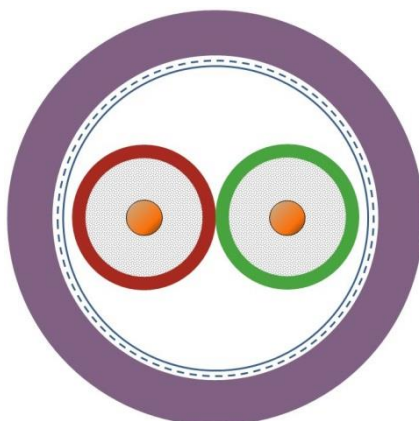


2170219	<b>DATA SHEET</b>	
valid from: 01.01.2019	<b>UNITRONIC® BUS PB A</b> <b>1 x 2 x 0,64</b>	

## Application

Data cable with UL- and cUL approval for the fieldbus-system PROFIBUS DP, PROFIBUS FMS, SIEMENS SIMATIC® NET (acc. to DIN 19245, Teil 3 und EN 50170 Kabeltyp A) and for the 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 cable is intended for permanent installation in dry and damp interiors. With the double screening the cable is suitable for installation in electromagnetic demanding areas.

## Design




Certification	UL / cUL Type CMX acc. to UL 444 and CSA C22.2 No. 214-08
Conductor	bare copper, nom. 0.64 mm Ø (22 AWG)
Insulation	Skin-Foam-Skin PE, core Ø nom. 2.55 mm
Core identification code	cores red and green
Stranding	2 cores together with 2 fillers 1 layer plastic-foil
Screen	plastic-laminated aluminium foil, side with metal outwards, braid of tinned copper wires, coverage min. 80%
Outer sheath	PVC compound, violet similar to RAL 4001, wall thickness nom. 1.0 mm, outer diameter: max. 8.0 mm

## Electrical properties at 20°C

Loop resistance	max. 115 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	ca. 28 nF/km (at 800 Hz)
Inductance	ca. 0.83 mH/km (at 800 Hz)
Characteristic impedance	9,6 kHz: 270 Ω ± 27 38,4 kHz: 185 Ω ± 18,5 3 bis 20 Mhz: 150 Ω ± 15
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
Velocity of propagation	nom. 81%
Transfer impedance	max. 5 mΩ/m
Peak operating voltage	225 V (not for power purposes)

Creator: TOST / PDC	Document: DB2170219EN	Page 1 of 2
Released: ALTE / PDC	Version: 06	

2170219	<b>DATA SHEET</b>	
valid from: 01.01.2019	<b>UNITRONIC® BUS PB A</b> <b>1 x 2 x 0,64</b>	

Test voltage	conductor/conductor 1500 V
	conductor/screen 1500 V

### Mechanical and thermal properties

Minimum bending radius	10 x cable-diameter
Temperature range	-40° C up to +80° C
Flammability	flame retardant acc. to IEC 60332-1-2/UL 1581 VW-1
Halogen free	acc. to VDE 0472-815
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Creator: TOST / PDC	Document: DB2170219EN	Page 2 of 2
Released: ALTE / PDC	Version: 06	