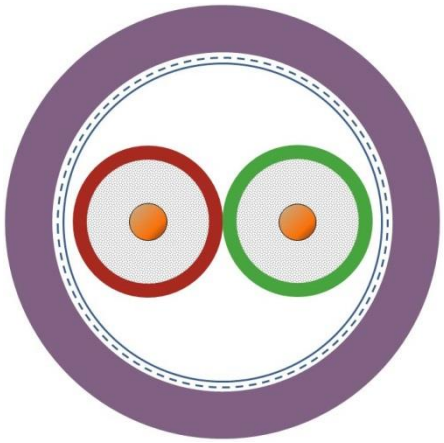
2170220	DATA SHEET	LAPP
valid from: 01.01.2019	UNITRONIC® BUS PB 1x2x0,64	

Application

Cable for field bus systems with 150 Ω impedance for installation in dry and wet rooms.

Design



Conductor	bare copper wire, ca. 0,64 mm ⌀ (22AWG)
Insulation	Foam-Skin PE, core ⌀ ca. 2.55 mm
Core identification code	a-core red, b-core green
Stranding	2 cores together with 2 fillers 1 layer non-woven tape, overlapping
Screen	plastic-laminated aluminium foil (side with metal outwards) on top: braid of tinned copper wires, coverage ca. 85%
Outer sheath	PVC compound, violet (similar to RAL 4001), wall thickness ca. 1.00 mm, outer ⌀: ca. 8.00 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. 0,3 dB/100 m 38,4 kHz: max. 0,5 dB/100 m 4 MHz: max. 2,2 dB/100 m 16 MHz: max. 4,5 dB/100 m
Transfer impedance	20 MHz: max. 10 Ω/km
Peak operating voltage	250 V (not for power applications)
Test voltage	conductor/conductor 1500 V conductor/screen 1500 V

Mechanical and thermal properties

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