

UNITRONIC® BUS PB 1x2x0,64

DB2170220
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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 Ø (22AWG)
Insulation	Foam-Skin PE, core Ø ca. 2.55 mm
Core identification code	a-core red, b-core green
Stranding	2 cores together with 2 fillers
Wrapping	1 layer non-woven tape, overlapping
Screening	plastic-laminated aluminium foil (side with metal outwards) <u>on top:</u> braid of tinned copper wires, coverage ca. 85%
Outer sheath	PVC, violet (similar to RAL 4001), wall thickness ca. 1.00 mm, outer Ø: ca. 8.00 mm

Electrical properties at 20° C

Resistance (loop)	max. 115 Ω/km
Screen resistance	max. 9.5 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
Line 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
Operating peak voltage	250 V (not for power purposes)
Test voltage U _{eff.} (core/core and core/screen)	1500 V

Mechanical and thermal properties

Minimum bending radius	10 x cable Ø
Permissible temperature range	-40 °C up to +80 °C
Flame propagation	flame retardant acc. to IEC 60332-1-2
General requirements	Dangerous and forbidden substances acc. to RoHS directive 2011/65/EU regarding Restriction of the use of certain hazardous substances (RoHS) are not allowed to the manufacturing.