
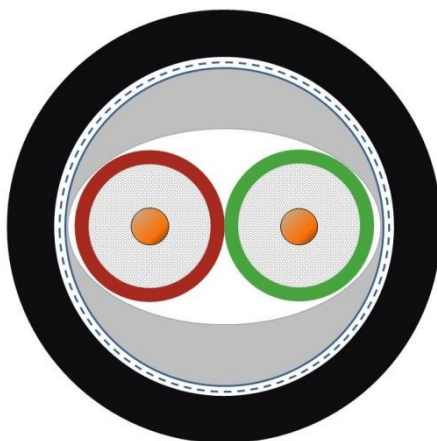


2170333	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS PB PE FC 1x2x0,64	

Application

UNITRONIC® BUS PB P FC 1x2x0,64 is a field bus cable with 150 Ω nominal impedance and a length-related transmission rate by 93,75 kBit/s to 12 MBit/s. The product is suitable for fixed installation in dry and wet rooms. Other characteristics are UV resistance and excellent shielding properties. Preferred applications are the foods –and beverage industry.

Design




Conductor	bare copper wire AWG22/1, \varnothing approx. 0,643 mm
Insulation	foamed skin polyethylene (02YS), \varnothing 2,55 mm (nominal value)
Core identification code	red/green
Stranding	2 cores stranded to pair plastic tape (overlapping)
Inner sheath	PVC, nature, outer \varnothing approx. 5,40mm
Screen	aluminium laminated shield foil under braid, tinned copper wires, coverage 55 % \pm 5 %
Taping	(optional) thin non-woven tape, longitudinally applied
Outer sheath	PE, black (similar RAL 9005), outer \varnothing : 7,8 mm \pm 0,2 mm

Electrical properties at 20°C

Insulation resistance	min. 5 GΩxkm
Inductance	nom. 1000 μH/km (800 Hz)
Characteristic impedance	270 Ω (\pm 10%) (9,6 kHz) 185 Ω (\pm 10%) (38,4 kHz) 150 Ω (\pm 10%) (3-20) MHz
Attenuation	max. 0,25 dB/100m (9,6 kHz) max. 0,4 dB/100m (38,4 kHz) max. 0,8 dB/100m (200 kHz) max. 2,2 dB/100m (4 MHz) max. 4,2 dB/100m (16 MHz)
Velocity of propagation	nom. 0,75
Signal transit time	nom. 450 ns/100m (3-20) MHz
Transfer impedance	max. 10 mΩ/m (up to 20,0 MHz)
Peak operating voltage	250 V (not for power applications)
Test voltage	core/core: 1500 V core/screening: 1500 V

AbN
automation

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Mechanical and thermal properties

Minimum bending radius	fixed installation: 8 x outside diameter cable
Temperature range	fixed installation: -40°C up to +60°C
UV resistance	acc. to EN 50289-4-17 (VDE 0819-289-4-17) are cables with black sheath suitable for permanent outdoor use
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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