
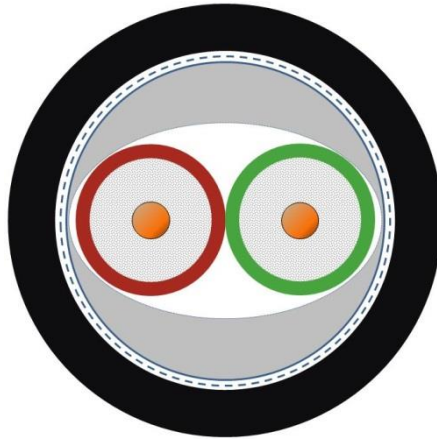


2170333	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS PB PE FC 1x2x0,64	

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

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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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