#### 2170333

# **DATA SHEET**

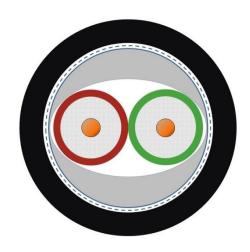
valid from: 01.01.2019 UNITRONIC® BUS PB PE FC 1x2x0,64



#### **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 b 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, Ø approx. 0,643 mm

Insulation foamed skin polyethylene (02YS),

Ø 2,55 mm (nominal value)

Core identification code red/green

Stranding 2 cores stranded to pair

plastic tape (overlapping)

Inner sheath PVC, nature, outer Ø approx. 5,40mm

aluminium laminated shield foil under braid, tinned coper wires, coverage 55 %  $\pm5$  %Screen

**Taping** (optional) thin non-woven tape, longitudinally applied

Outer sheath PE, black (similar RAL 9005),

outer Ø: 7,8 mm ± 0,2 mm

#### Electrical properties at 20°C

Insulation resistance min. 5 GΩxkm

Inductance nom. 1000 µH/km (800 Hz) Characteristic impedance 270 Ω (±10%) (9,6 kHz) 185  $\Omega$  (±10%) (38,4 kHz)

150  $\Omega$  (±10%) (3-20) MHz max. 0,25 dB/100m (9,6 kHz)

Attenuation

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 m $\Omega$ /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).