
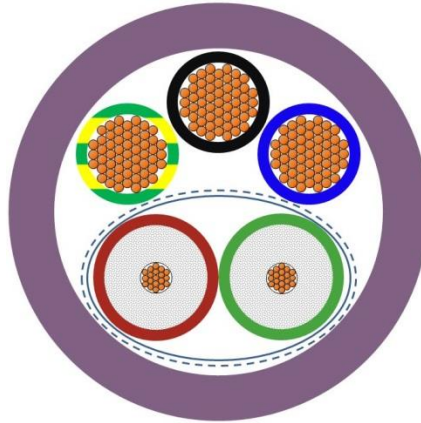


2170227	<b>DATA SHEET</b>	
valid from: 01.02.2019	<b>UNITRONIC® BUS PB FD P COMBI 1x2x0,22 mm<sup>2</sup> + 3x1,0 mm<sup>2</sup></b>	

### Application


UNITRONIC® BUS PB FD P COMBI 1x2x0,64 + 3x1 is a field bus cable with 150 Ω nominal impedance. It is intended for high flexible applications in power chains.

### Design



Conductor	<p>data pair: bare copper, fine-wire stranded, 19 x ca. 0.127 ca. 0.25 mm<sup>2</sup></p> <p>power pair: bare copper, fine-wire stranded, ~56 x ca. 0.15 ca. 1.00 mm<sup>2</sup></p>
Insulation	<p>data pair: foam-skin polyolefin, core Ø ca. 2.55 mm</p> <p>power pair: polyolefin, core Ø ca. 1.7 mm</p>
Core identification code	<p>data pairs: red and green</p> <p>power pair: black, blue, green/yellow</p>
Stranding	screened data pair (plastic laminated aluminium-foil with braid of tinned copper wires, coverage approx. 85%) twisted together with power supply cores and optional fillers
Taping	non-woven tape
Outer sheath	PUR, violet (similar to RAL 4001), outer Ø: ca. 10.0 mm

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### Electrical properties at 20°C

Conductor resistance	power cores: max. 19.5 Ω/km
Loop resistance	data cores: max. 145 Ω/km
Specific volume resistivity	data cores: min. 5 GΩ x km
	power cores: min. 20 MΩ x km
Mutual capacitance	max. 30 nF/km (800Hz)
Characteristic impedance	9,6 kHz: 270 Ω ± 27 Ω 38,4 kHz: 185 Ω ± 18,5 Ω 3 MHz - 20 MHz: 135 Ω - 165 Ω
Attenuation	9.6 kHz: max. 0.3 dB/100 m 38.4 kHz: max. 0.5 dB/100 m 4 MHz: max. 2.5 dB/100 m 16 MHz: max. 4.9 dB/100 m
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	14.5 x cable Ø
Temperature range	fixed use - 40° C up to +80° C flexible use - 5° C up to +50° C
Flammability	flame retardant acc. to IEC 60332-1-2
Halogen free	halogen free acc. to VDE 0472-815
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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