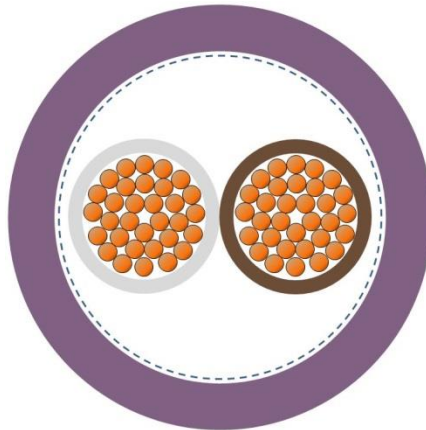


2170272	DATA SHEET	
valid from: 08.02.2021	UNITRONIC® BUS CAN FD P 1x2x0,25	

Application

UNITRONIC® BUS CAN FD P 1x2x0,25 UNITRONIC® BUS CAN FD P is a highly flexible data cable with UL and CSA certification, for CAN (Controller Area Network) fieldbus system according to ISO11898 as well as for high performance data networks with 120 Ohms nominal impedance. The transmission characteristics of the cable conform to the CAN system and guarantee a high operating security during data transmission. The possible data transmission acc. To ISO 11898 for max. 40m is 1 Mbit/s. UNITRONIC® BUS CAN FD P is intended for high flexible application in power chains, or permanently moving machines, in dry and damp interiors and in harsh industrial environment.

Design



Certification	E236660 c(UL)us CMX 75 °C acc. to UL 444 and CSA C22.2 No.214
Conductor	fine-wire stranded bare copper 0.25 mm ² (24 AWG)
Insulation	Foam-Skin Polyolefin Corediameter: ca. 1.6 mm
Core identification code	white and brown (DIN 47100)
Stranding	two cores stranded to pairs on top: non-woven tape
Screen	braid of tinned copper wires (coverage: 85% ± 5%)
Taping	non-woven tape (optional)
Outer sheath	PUR violet, similar RAL 4001 outer diameter: ca. 6.5 mm

Electrical properties at 20 °C

Loop resistance	max. 175.2 Ω/km
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 48 nF/km (at 800 Hz)
Characteristic impedance	120 Ω ± 15 %
Attenuation	100 kHz nom. 0,6 dB/100m 1 MHz nom. 1,5 dB/100m 5 MHz nom. 4,3 dB/100m 10 MHz nom. 8,1 dB/100m 20 MHz nom. 10,5 dB/100m
Velocity of propagation	0.76 c
Signal propagation time	4.4 ns/m
Transfer impedance	max. 250 mΩ/m up to 30 MHz
Maximum operating voltage	250 V (not for power purposes)
Rated voltage	300 V acc. to UL 444
Test voltage	Core/Core: 1500 V AC Core/Screen: 1000 V AC

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Mechanical and thermal properties

Minimum bending radius	flexing: 15 x outer diameter fixed installation: 10 x outer diameter
Temperature range	flexing: -30 °C to +70 °C fixed installation: -40 °C to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 VW-1 acc. to UL 1581 §1080
Halogen free	acc. to VDE 0472-815
General requirements	This cable is conform to EU-Directive 2014/35/EU (Low Voltage Directive) and to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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