
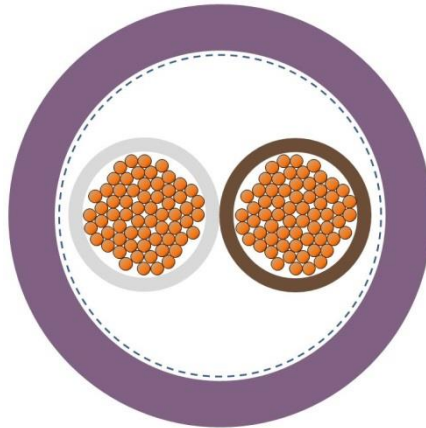


2170278	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS CAN FD P 1 x 2 x 0,5 mm²	

Application

UNITRONIC® BUS CAN FD P is a highly flexible data cable with UL and cUL approval, 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. 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	UL / cUL Typ CMX. according to UL 444 and CSA C22.2 No.214-02.
Conductor	fine-wire stranded, 0.5mm ² (20AWG) of bare copper
Insulation	foam skin, core diameter approx. 2,5 mm
Core identification code	white and brown (acc. DIN 47100)
Stranding	2 cores twisted into a pair non-woven tape
Screen	braid of tinned copper wires
Outer sheath	PUR, halogen free, flame retardant, violet, OD approx. 8.1 mm

Electrical properties at 20°C

Loop resistance	max. 77,8 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	nom. 40 nF/km (at 800 Hz)
Characteristic impedance	120 Ω ± 15% (at f ≥ 1 MHz)
Attenuation	at 100 kHz nom. dB/100 m 0.35 at 1 MHz nom. dB/100 m 1.1 at 5 MHz nom. dB/100 m 2.9 at 10 MHz nom. dB/100 m 4.1 at 20 MHz nom. dB/100 m 6.2
Velocity of propagation	nom. 76 %
Signal transit time	4,4 ns/m
Transfer impedance	at 30 MHz max. 250 mΩ/m
Peak operating voltage	250 V (not for power applications)
Test voltage	conductor/conductor 1500 V conductor/screen 1000 V

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Mechanical and thermal properties

Minimum bending radius	moved cable diameter x 15
Temperature range	moved - 30° C to + 70° C
	static - 40° C to + 80° C
Flammability	flame retardant acc. to IEC 60 332-1-2 / UL 1581 VW-1
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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