
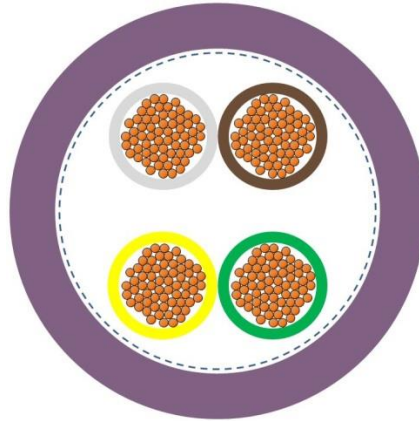


2170279	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS CAN FD P 2x2x0,5	

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 second pair can be used for electrical power supply for the logical bus units. 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




Approval	UL / cUL type CMX according to UL 444 and CSA C22.2 No.214-02.
Conductor	fine-wire stranded, 0.5 mm ² (20AWG) of bare copper
Insulation	foam skin, core diameter approx. 2.15 mm
Core identification code	pair 1: white and brown; pair 2: green and yellow (DIN 47100)
Stranding	two cores stranded to pair, two pairs with two fillers stranded to bundle, non-woven tape
Screen	braid of tinned copper wires
Outer sheath	PUR, halogen free, flame retardant colour: violet outer diameter approx. 10.1 mm

Electrical properties at 20°C

Loop resistance	max. 77,8 Ω/km
Specific volume resistivity	min. 5 GΩ x km
Mutual capacitance	A/A: nom. 40 nF/km
Characteristic impedance	120 Ω ± 15 %
Attenuation	100 kHz nom. 0,35 dB/100m 1 MHz nom. 1,1 dB/100m 5 MHz nom. 2,9 dB/100m 10 MHz nom. 4,1 dB/100m 20 MHz nom. 6,2 dB/100m
Near-end cross-talk	20 MHz min. 40 dB
Velocity of propagation	nom. 76 %
Signal transit time	4,4 ns/m
Transfer impedance	up to 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

Creator: TOST / PDC	Document: DB2170279EN	Page 1 of 2
Released: ALTE / PDC	Version: 06	

2170279	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS CAN FD P 2x2x0,5	

Mechanical and thermal properties

Minimum bending radius	Flexing: 15 x cable outer diameter
Temperature range	moved - 30° C to + 70° C
	static - 40° C to + 80° C
Flammability	flame retardant acc. to IEC 60332-1-2
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Creator: TOST / PDC	Document: DB2170279EN	Page 2 of 2
Released: ALTE / PDC	Version: 06	