

2170272	DATA SHEET	
valid from: 01.02.2019	UNITRONIC® BUS CAN FD P 1x2x0.25	

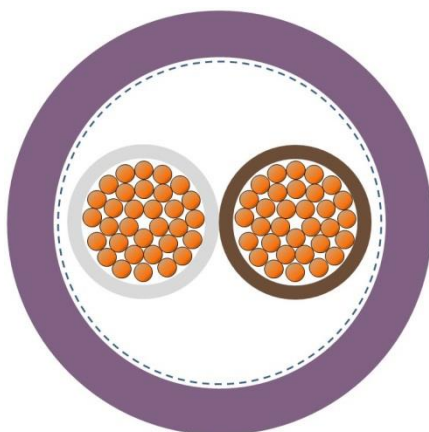
Application

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	cUL Type CMX according to UL 444 and CSA C22.2 No.214
Conductor	stranded, tinned copper wires conductor Ø 0.61 mm AWG 24/7
Insulation	heat resistant polyolefin compound, Foam-Skin OuterØ max. 1.4 mm
Core identification code	pair 1: white + blue; pair 2: white + orange; pair 3: white + green; pair 4: white + brown
Stranding	two cores stranded to pairs and covered with plastic laminated aluminum foil, screend pairs stranded to bundle
Screen	braid of tinned copper wire coverage approx. 85%
Outer sheath	halogenfree and flame retardent PUR-compound colour: RAL 4001 / violet outer Ø: approx. 6.5 mm

Creator: TOST / PDC	Document: DB2170272EN	Page 1 of 2
Released: ALTE / PDC	Version: 6	

2170272	DATA SHEET	
valid from: 01.02.2019	UNITRONIC® BUS CAN FD P 1x2x0.25	

Electrical properties at 20°C

Loop resistance	max. 159.8 Ω /km
Insulation resistance	min. 5 G Ω x km
Mutual capacitance	nom. 48 nF/km (at 800 Hz)
Capacitive coupling	up to MHz max. 250 m Ω /m
Characteristic impedance	120 $\pm$ 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 transit time	4.4 ns/m
Peak operating voltage	250 V (not for power purposes)
Test voltage	Core/Core: 1500 V Core/Screen: 1000 V

Mechanical and thermal properties

Minimum bending radius	fixed use 10 x cable $\emptyset$ flexible use 15 x cable $\emptyset$
Temperature range	moved - 30° C to + 70° C static - 40° C to + 80° C
Flammability	flame retardant acc. to IEC 60332-1-2 and 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).

Creator: TOST / PDC	Document: DB2170272EN	Page 2 of 2
Released: ALTE / PDC	Version: 6	