
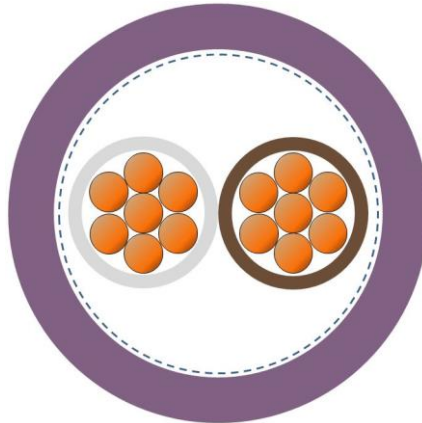


2170803	DATA SHEET	
valid from: 01.03.2021	UNITRONIC® BUS LD A 1x2x0,22 mm²	

Application

UNITRONIC® BUS LD A is a screened, twisted paired cable with UL/CSA approval for bus systems with a data transmission rate up to 10 MBit/s. The twisting of the conductors into pairs ensures maximum interference suppression of the individual signals. The copper screening protects against external electromagnetic influences. Cables of this composition are intended for limited flexible use and for permanent installation in dry and damp interiors.

Design




Certification	c(UL)us CMX 75 °C acc. to UL 444 and CSA C22.2 No. 214
Conductor	stranded, bare copper 0,22 mm ²
Insulation	polyolefin core diameter: nom. 1.5 mm
Core identification code	pair 1: white/brown
Stranding	cores stranded to pair on top: plastic tape (overlapping)
Screen	braid of tinned copper wires (coverage 85 % ± 5 %)
Taping	optional: non-woven tape (overlapping)
Outer sheath	PVC violet, similar RAL 4001 outer diameter: nom. 5.7 mm (± 0.3 mm)

Electrical properties at 20 °C

Loop resistance	max. 175.2 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	max. 60 nF/km (at 800 Hz)
Characteristic impedance	100 Ω up to 120 Ω
Attenuation	100 kHz: ≤ 0.9 dB/100 m 1 MHz: ≤ 2.5 dB/100 m 10 MHz: ≤ 7.9 dB/100 m
Near-end cross-talk	1 MHz: ≥ 50 dB 10 MHz: ≥ 40 dB
Velocity of propagation	0.66 c
Transfer impedance	1 MHz: ≤ 50 mΩ/m 10 MHz: ≤ 100 mΩ/m
Maximum operating voltage	250 V (not for power applications)
Rated voltage	UL: 300 V acc. to UL 444
Test voltage	core/core: 1500 V core/screen: 1500 V

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Mechanical and thermal properties

Minimum bending radius	flexing: 20 x outer diameter fixed installation: 8 x outer diameter
Temperature range	flexing: -5 °C up to +70 °C fixed installation: -30 °C up to +80 °C UL: 75 °C acc. to UL 444
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 VW-1 acc. to UL 1581 §1080
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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