2170857	DATA SHEET	LAPP
valid from: 01.01.2019	UNITRONIC® BUS CAN TRAY	

Application

Data cable for the CAN bus system (Controller Area Network) acc. to ISO 11898 with UL/cUL approval and for data bus systems with 120 Ohm impedance.

Design

Certification	c(UL)us type CMG (75 °C) acc. to UL 444 and CSA C22.2 No. 217-02; UL type PLTC-ER acc. to UL 13; UL AWM style 21695 (PVC, 80 °C, 600 V, internal wiring); Desina listed
Conductor	fine-wire stranded bare copper, ca. 0.34 mm² (ca. 22AWG), 7-wire
Insulation	foam skin PO, core diameter ca. 1.8 mm
Core identification code	white and brown + green and yellow
Stranding	four cores stranded together (star quad)
Inner sheath	PVC, outer diameter ca. 4.8 mm
Braid	braid of tinned copper wires, coverage ca. 85%
Taping	one layer plastic foil
Outer sheath	PVC, violet (similar to RAL 4001), outer diameter ca. 7.5 mm

Electrical properties at 20°C

Conductor resistance	max. 110,8 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	ca. 40 nF/km (at 800 Hz)
Characteristic impedance	120 Ω ±12 Ω (for ≥ 1 MHz)
Attenuation	1 MHz: nom. 1.7 dB/100 m 5 MHz: nom. 4.0 dB/100 m 10 MHz: nom. 5.8 dB/100 m 20 MHz: nom. 8.5 dB/100 m
Peak operating voltage	250 V (not for power applications)
Rated voltage	600 V
Test voltage	conductor/conductor 2000 V conductor/screen 2000 V

Mechanical and thermal properties

Minimum bending radius	moved: 15 x cable diamter fixed installation: 8 x cable diameter
Temperature range	moved: -10°C up to +70°C fixed installation: -40°C up to +80°C
Flammability	flame retardant acc. to FT 4 (Vertical Tray) acc. to UL 1685
UV resistance	sunlight resistant acc. to UL 1581 Sec. 1200
Oil resistance	oil res I acc. to UL 1581 Sec. 480
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).