



UNITRONIC® BUS ASI (PVC) A

DB2170842

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Application

UNITRONIC® BUS ASI FD P FRNC is a two-core and flat actuator/sensor bus cable for the AS-INTERFACE (actuator-sensor-interface) networking system for the lower field area. The cable is particularly suitable for applications with high mechanical stress and which require a high oil resistance. It is suitable for fixed installation and flexible applications and is flame retardant. Data transmission for AS-INTERFACE telegrams and power supply for AS-I slaves, master, repeater, extender and sensors is done via this unscreened, geometrically-coded two-core flat cable. The contacting of the conductors by the insulation displacement-system of the AS-I modules is possible without stripping the insulation. The cable is designed for indoor applications.

Approvals: UL type CL 2 acc. to UL 13, UL type CMG acc. to UL 444, AWM-style 2095

Design

Conductor	tinned copper, ca. 1.5 mm \varnothing , super-fine-wire stranded
Insulation	PVC, core \varnothing ca. 2.5 mm
Core identification	colors of the cores: brown (+), blue (-)
Core assembly	2 cores parallel deviation brown core assembled in line with leading edge
Outer sheath	PVC, dimensions and tolerances acc. to ASI specification sheath colors: art.no. 2170842: yellow (similar to RAL 1012) art.no. 2170843: black (similar to RAL 9005) art. no. 2170844: red (similar to RAL 3000)

Electrical properties at 20° C

Resistance	max. 13.7 Ω /km
Mutual capacitance	max. 80 nF/km
Inductance	0.5 mH up to 0.75 mH/km
Characteristic impedance	167 kHz: 70 Ω up to 140 Ω
Volume resistivity	min. 1 M Ω xkm
Current-carrying-capacity	acc. to 0298-4, table 6, column 4
Operating voltage	ca. 30 V (230 V (AC) for art. no.: 2170844)
Operating peak voltage	300 V (not for power purposes)
Test voltage core/core (rms 50 Hz, 1 min.)	2000 V

Mechanical and thermal properties

Minimum bending radius (on broadside)	power chain horizontal: 75 mm power chain vertical: 50 mm multiple bendings: \geq 24 mm single: \geq 12 mm
Permissible temperature range	during installation: -20 °C up to +90 °C before and after installation: -30 °C up to +90 °C
Flame resistance	flame retardant acc. to IEC 60332-1-2 flame retardant acc. to UL 1581 Sec. 1061 (Cable Flame) flame retardant acc. to UL 1581 Sec. 1060 (FT-1) flame retardant acc. to UL 1685 (CSA FT 4)
Oil resistance	oil resistant acc. to UL 1581, Sec. 480 (60 °C)
General requirements	Dangerous and forbidden substances acc. to RoHS directive 2002/95/EG regarding Restriction of the use of certain hazardous substances (RoHS) are not allowed to the manufacturing.