DATA SHEET 2170351

valid from: 01.02.2019

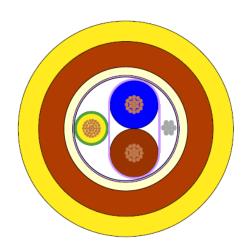
UNITRONIC® BUS FF 3 ARM (YE) 1X2X1.1 +1.1



Application

FOUNDATION Fieldbus cable for use in Process Automation - UL-verified Used in intrinsically safe areas, especially in the field of Process Automatio. UL/CSA-approval. This cable has an armouring which provides a safe solution taking mechanical stress etc. into account. Temperature range from -40 °C bis +80°C

Design



Certification cUL CMG - certified 75°C or CL2 FT4, Sun Res, Oil Res

Conductor Stranded bare copper wire 41 X 0.16

Ø approx. 1,1 mm

Insulation LIY-wire

Insulation of Polyvinylchloride (PVC)

Ø 2,0 mm (nominal value)

power cores:

Insulation of irradiated Polyethylene (XLPE)

Ø 2,85 mm (nominal value)

Core identification code LIY-wire

green/yellow

power cores: blue and brown

Stranding screened power pair (aluminium laminated foil) twisted together with LIY-wire to the core with

aluminium laminated foil and drain wire

Stranded tinned copper drain wire 0.5 mm²

Inner sheath PVC.

outer \emptyset : 7,0 mm \pm 0,3 mm

Braid protection tube/covering of Copper tape (thickness 0.25 mm) longitudinal welded,

annular corrugated outer Ø: approx. 9,7 mm

Outer sheath PVC, yellow,

outer Ø: 12,3 mm ± 0,3 mm

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Electrical properties at 20°C

Conductor resistance max. 24 Ω/km Specific volume resistivity 20 $M\Omega^*\text{km}$

Inductance 0.48 mH/km (1 kHz)
Capacitive coupling conductor/conductor
nom. 65 nF/km (1 kHz)

conductor/screen

nom. 135 nF/km (1 kHz) 100 Ω (±20) (31.25 kHz)

 $\begin{array}{lll} \mbox{Characteristic impedance} & 100 \ \Omega \ (\pm 20) \ (31.25 \ \mbox{kHz}) \\ \mbox{Attenuation} & \mbox{nom.} < 3,4 \ \mbox{dB/km} \ (39 \ \mbox{kHz}) \\ \mbox{Peak operating voltage} & 300 \ \mbox{V (not for power applications)} \\ \mbox{Test voltage} & \mbox{conductor/conductor} \ \ 1500 \ \mbox{V} \end{array}$

conductor/screen 1500 V

Mechanical and thermal properties

Minimum bending radius fixed use 5×6 cable \emptyset

repeated use 10 x cable Ø

Temperature range - 25 ° C up to +80 ° C

Flammability flame retardant acc. to UL1685 / CSA FT4 and IEC60332-3-24

UV resistance Sunlight resistance acc. to UL1581 Sec. 1200

Oil resistance nach UL1581 Sec.480 (60°)

General requirements This cable is conform to the EU-Directive 2011/65/EU

(RoHS, Restriction of the use of certain hazardous substances).

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