



UNITRONIC® BUS FF 2

DB2170352

valid from: 02.08.2013

Application

Fieldbus-cable for the FOUNDATION™ Fieldbus bus system.

Approvals: c(UL)us, type CMG; (UL), type CL3

Design

Conductor	bare copper, stranded wire (37 x 0.17 mm), approx. 1.15 mm \varnothing
Insulation	irradiated Polyethylene XLPE, wall thickness approx. 0.85 mm, core \varnothing approx. 2.85 mm
Core identification code	cores blue and brown
Stranding	2 cores twisted to pair
Screening	1 layer plastic-laminated aluminium foil (overlapping) <u>on top:</u> stranded, tinned copper drain wire, approx. 0.5 mm ² <u>on top:</u> braid of tinned copper wires, coverage approx. 85%
Wrapping	plastic tape (overlapping)
Outer sheath	PVC, yellow, wall thickness approx. 1.02 mm, outer \varnothing : approx. 7.9 mm

Electrical properties at 20° C

Resistance	max.24 Ω /km
Insulation resistance	min. 20 M Ω xkm
Capacitance	wire/wire: approx. 65 nF/km wire/screen: approx. 125 nF/km
Inductance	31.25 kHz: approx. 0.75 μ H/m
Characteristic impedance	31.25 kHz: 100 Ω \pm 20 Ω
Attenuation	39 kHz: max. 3,4 dB/km
Operating peak voltage	300 V (not for power purposes)
Test voltage (wire/wire, wire/screen; rms 50 Hz, 1 min.)	1500 V

Mechanical and thermal properties

Minimum bending radius	moved: 10 x cable \varnothing fixed installation: 5 x cable \varnothing
Permissible temperature range	-40° C up to +105° C
Sunlight resistance	acc. to UL 1581 Sec. 1200
Oil resistance	UL 1581 Sec. 480 (60 °C)
Flame retardant	flame retardant acc. to UL 1685 (CSA FT 4)
General requirements	Dangerous and forbidden substances acc. to RoHS directive (2011/65/EU) are not allowed to the manufacturing.