



UNITRONIC® BUS DN THIN FRNC

DB2170341

valid from: 05.09.2013

Application

Halogen free data cable with power cores for DeviceNet field-bus system. The cable is intended for permanent installation and for limited flexible use.

Approvals: c(UL)_{US}, type CMG; (UL), type CL2

Design

Data cores	conductor	tinned copper, fine-wire stranded (19 x 0.13), \varnothing ca. 0.67 mm
	insulation	Foam-Skin PE, outer \varnothing ca.1.9 mm
	number of cores	2
	colors	white and blue
	stranding	cores laying side by side
	screening	plastic-laminated aluminum foil, overlapping, applied longitudinally
Power supply cores	conductor	tinned copper, fine-wire stranded (19 x 0.16 mm), \varnothing ca. 0.75 mm
	insulation	PE, outer \varnothing ca. 1.4 mm
	number of cores	2
	colors	red and black
	stranding	cores laying side by side
	screening	plastic-laminated aluminum foil, overlapping, applied longitudinally
Stranding	central element	tinned copper, fine-wire stranded (19 x 0.16), ca. 0.38 mm ² core pairs stranded together with central element
Overall screening		braid of copper wire, tinned wire, coverage ca. 70%
Outer sheath		halogen free compound, violet, outer \varnothing ca. 6.9 mm



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Technical data**Data cores**

conductor resistance	max. 90 Ω/km
Capacitance	ca. 39.8 nF/km (at 1 kHz)
signal propagation time	4.46 ns/m
test voltage (rms 50 Hz, 1 min.)	core/core: 2000 V core/screen: 2000 V
characteristic impedance	120 Ω ± 12 Ω (at 1 MHz)
attenuation	125 kHz: 0.95 dB/100 m 500 kHz: 1.64 dB/100 m 1000 kHz: 2.29 dB/100 m

Power supply cores

Conductor resistance	max. 55 Ω/km
Insulation resistance	min. 200 MΩxkm
operating peak voltage	300 V (not for power purposes)

Mechanical and thermal characteristics

Minimum bending radius	moved: 20 x core Ø fixed installation: 7,5 x core Ø
Temperature range	-25° C up to +80° C
Flame propagation	flame retardant acc. to UL 1685 (CSA FT 4)
Halogen free	halogen free acc. to IEC 60754-1/60754-2
Sunlight resistance	sunlight resistant acc. to UL 1581 Sec. 1200
General requirements	Dangerous and forbidden substances acc. to RoHS directive (2011/65/EU) are not allowed to the manufacturing.