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Bus system cable, FOUNDATION Fieldbus (31.25 kbps), 3-position, PVC, orange RAL 2003, shielded, Plug straight M12, A-coded, on free cable end, cable length: 2 m



Key Commercial Data

Packing unit	1 STK	
GTIN	4 046356 431651	
GTIN	4046356431651	

Technical data

Dimensions

Length of cable	2 m
Stripping length of the free conductor end	50 mm

Ambient conditions

Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)		
Degree of protection	IP65		
	IP67		
	IP68		
	IP69K		

General

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Note	Further products with variable cable type and variable cable length can be found in the accessories section	
Rated current at 40°C	4 A	
Rated voltage	48 V AC	
	60 V DC	
Number of positions	3	
Color handle area	black	
Insulation resistance	≥ 100 MΩ	



Technical data

General

Coding	A - standard
Signal type/category	FOUNDATION Fieldbus, 31.25 kbps
Status display	No
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Flammability rating according to UL 94	НВ
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Stainless steel
Sealing material	NBR

Standards and Regulations

Flammability rating according to UL 94	
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Cable

Cable type	FOLINDATION Fieldbus grapge		
Cable type	FOUNDATION Fieldbus orange		
Cable type (abbreviation)	960		
Cable structure	2xAWG18/7 + 1xAWG20/7		
Conductor cross section	2x 0.75 mm² (Signal line)		
	1x 0.5 mm² (Drain wire)		
AWG signal line	18		
Conductor structure signal line	7x 0.40 mm		
Core diameter including insulation	2.24 mm ±0.05 mm		
Thickness, insulation	0.5 mm		
Wire colors	Blue, orange		
Twisted pairs	2 cores to the pair		
Overall twist	One pair with one drain wire and fillers for core		
Shielding	Plastic-coated aluminum foil with a drain wire		
Optical shield covering	100 %		
External sheath, color	orange RAL 2003		
Outer sheath thickness	1 mm		
External cable diameter D	7.5 mm ±0.25 mm		
Smallest bending radius, fixed installation	75 mm		
Cable weight	56.552 kg/km		
Tensile strength GRP	260 N		
Outer sheath, material	PVC		



Technical data

Cable

Material conductor insulation	PO (Signal line)		
Conductor material	Tin-plated Cu litz wires		
Conductor resistance	≤ 19.35 Ω/km (Signal line)		
	26 Ω/km (shield)		
Working capacitance	78 nF (at 1 kHz)		
Cable capacity	147 pF/m (at 1 kHz, core/shield)		
	≤ 3.94 pF/m (capacitance unbalance)		
Signal speed	0.66 c		
Shield attenuation	3 dB/km (at 39 kHz)		
Cable impedance	100 Ω ±20 % (At 31.25 kHz)		
Inductance	0.6233 μH (per meter)		
Nominal voltage, cable	300 V		
Special properties	UL standards PLTC-ER and ITC		
Flame resistance	UL 1685 (CSA FT 4)		
	UL 1685 (vertical tray)		
	UL 1666 (riser)		
Ambient temperature (operation)	-40 °C 105 °C (cable, fixed installation)		

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1	
China RoHS	Environmentally Friendly Use Period = 50	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

Drawings

Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side

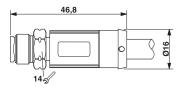
Cable cross section



FOUNDATION Fieldbus orange [960]

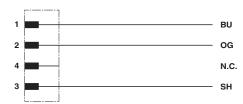


Dimensional drawing



EHE

Circuit diagram



Plug, M12 x 1, straight, shielded

Contact assignment of the M12 plug

Approvals

Approvals		
Approvals		
EAC		
Ex Approvals		
Approval details		

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EAC

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EAC-Zulassung