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Bus system cable - SAC-4P-M12MS/ 0,3-960/M12FS VA - 1431254

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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 Socket straight M12, A-coded, Cable length: 0.3 m

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 431736

Technical data

Dimensions

Length of cable	0.3 m

Ambient conditions

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

General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	3
Insulation resistance	≥ 100 MΩ
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

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Technical data

General

Torque	0.4 Nm (M12 connector)

Material

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

Standards and Regulations

Flammability rating according to UL 94	HB

Cable

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
Outer sheath, material	PVC
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)

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Technical data

Cable

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

Classifications

eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27279218

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

Approvals

Approvals

EAC

Bus system cable - SAC-4P-M12MS/ 0,3-960/M12FS VA - 1431254

Approvals

Ex Approvals

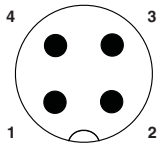
Approvals submitted

Approval details

EAC

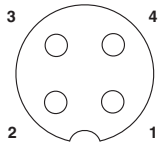
Drawings

Schematic diagram



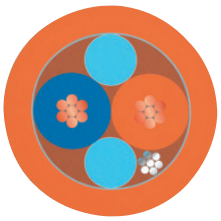
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



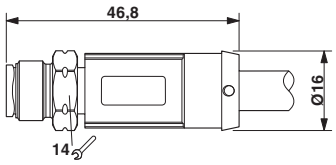
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



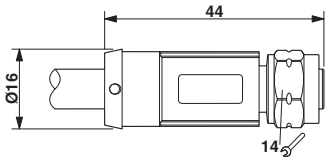
FOUNDATION Fieldbus orange [960]

Dimensional drawing



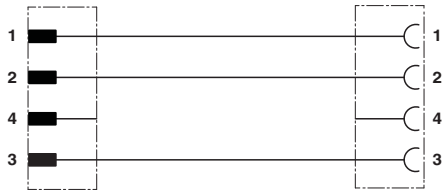
M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com

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