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Extract from the online catalog

## SAC-4P-M12MS/ 2,0-28X SH OD

Order No.: 1454121



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1454121>

Sensor/Actuator cable, 4-position, PE-X halogen-free, Black-gray RAL 7021, shielded, Plug, straightLink:M12, A - standard, on Free conductor end, Cable length: 2 m

Commercial data	
GTIN (EAN)	 4 046356 568739
sales group	D117
Pack	1 pcs.
Customs tariff	85444290
Catalog page information	Page 220 (PC-2011)

### Product notes

WEEE/RoHS-compliant since:  
03/04/2010



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

Technical data	
General data	
Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Volume resistance	≤ 5 mΩ

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Insulation resistance	≥ 100 MΩ
Length of cable	2 m
Ambient temperature (operation)	-40 °C ... 105 °C
	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))

**General characteristics**

Standards/regulations	M12 connector IEC 61076-2-101
Coding	A - standard
Pollution degree	3
Degree of protection	IP65/IP68/IP69K
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	High-grade steel
Sealing material	FPM
Status display	No

**Conductor data**

Cable type	PE-X black
Cable type (abbreviation)	28X
Cable abbreviation	Li2X2X-C-VI-2X
Conductor cross section	0.5 mm <sup>2</sup>
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.6 mm ±0.05 mm
Thickness, insulation	~ 0.3 mm (Core insulation)
	Approx. 0.7 mm (Outer cable sheath)
	~ 0.45 mm (Inner sheath)
External cable diameter	6.8 mm ±0.2 mm
Wire colors	Brown, white, blue, black
External sheath, color	Black-gray RAL 7021
Insulation resistance	≥ 100 MΩ*km (at 20°C)
Conductor resistance	max. 39 Ω/m (at 20°C)

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Nominal voltage, conductor	≤ 300 V
Test voltage, conductor	≥ 3000 V
Overall twist	4 wires, twisted
Length of twist, overall twist	108.8 mm
Shielding	Braided copper wires
Optical shield covering	85 %
Outer sheath, material	PE-X
Material, inner sheath	PE-X
Material conductor insulation	PE-X
Conductor material	Bare Cu litz wires
Cable weight	74 kg/km
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	68 mm
Number of bending cycles	1000000
Bending radius	68 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation) -15 °C ... 105 °C (cable, flexible installation)
Flame resistance	According to DIN 60332-1-2 According to DIN EN 50266-2-5
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant According to DIN VDE 0276-605

### Accessories

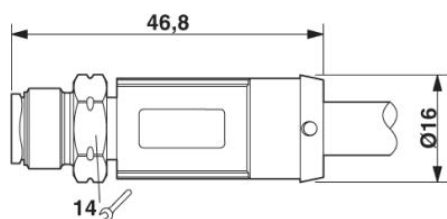
Item	Designation	Description
<b>General</b>		
1440041	SACC-M12FS-5CON-DM 5-8 SH VA	Sensor/actuator connector, socket, straight, 5-pos., M12 shielded, screw connection, high-grade steel knurl, cable screw connection 5 mm - 8.6 mm
<b>Tools</b>		
1212513	SAC BIT M12-W14	SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, with 4 mm hexagonal drive

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1208429	TSD 04 SAC	Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors
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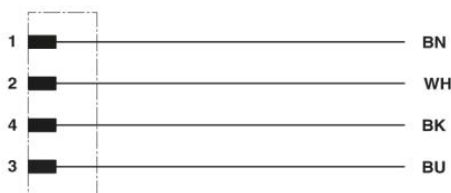
**Diagrams/Drawings**

Dimensioned drawing



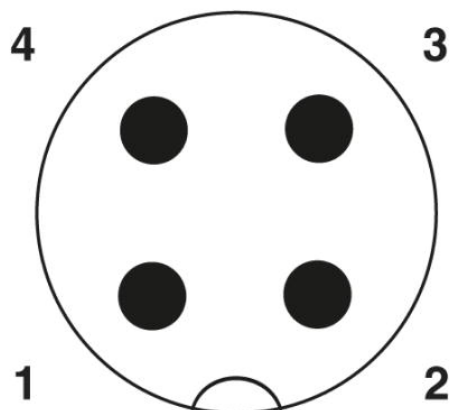
M12 x 1 male connector, straight

Circuit diagram



Contact assignment of the M12 plug

Schematic diagram



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

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