

# SAC-4P-M12MS/ 5,0-150/M12FS - Sensor/actuator cable



1546660

<https://www.phoenixcontact.com/us/products/1546660>

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Sensor/actuator cable, 4-position, PUR halogen-free, irradiated, welding sputter-resistant, orange RAL 2003, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 5 m

As shown in the illustration but with an orange conductor

## Commercial data

Item number	1546660
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	AF1CCA
GTIN	4046356128810
Weight per piece (including packing)	197.2 g
Weight per piece (excluding packing)	194.2 g
Customs tariff number	85444290
Country of origin	PL

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## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	250 V AC 250 V DC
Nominal current $I_N$	4 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
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### Signaling

Status display	no
Status display present	no

### Connection data

#### Conductor connection

Tightening torque	0.4 Nm
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### Connector

#### Connection 1

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Type	Plug straight M12
Number of positions	4
Coding type	A

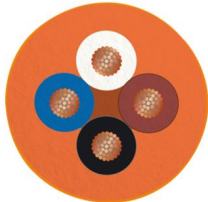
## Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	A

## Cable/line

Cable length	5 m
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## PUR irradiated halogen-free orange [150]

Dimensional drawing	
Number of positions	4
Shielded	no
Cable type	PUR irradiated halogen-free orange [150]
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross-section	4x 0.34 mm <sup>2</sup> (Signal line)
Wire diameter incl. insulation	1.05 mm ±0.05 mm (Signal line)
External cable diameter	5.20 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	orange RAL 2003
Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wire, color	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	27 mm
Max. conductor resistance	max. 57 Ω/km
Nominal voltage, cable	320 V (AC)
Test voltage	2500 V (50 Hz, 5 minutes)
Smallest bending radius, fixed installation	min. 15 mm
Smallest bending radius, movable installation	min. 30 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 52 mm, Traversing path: 10 m, Traversing rate: 3 m/s
Dynamic load capacity (torsion)	Torsion: ±360 °/m
Halogen-free	The cable is halogen-free

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Other resistance	hydrolysis and microbe resistant
	Resistant to welding splashes
Special properties	Silicone-free
	Irradiated
Ambient temperature (operation)	-50 °C ... 105 °C (cable, fixed installation)
	-40 °C ... 105 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-50 °C ... 105 °C (cable, fixed installation)
	-40 °C ... 105 °C (Cable, flexible installation)

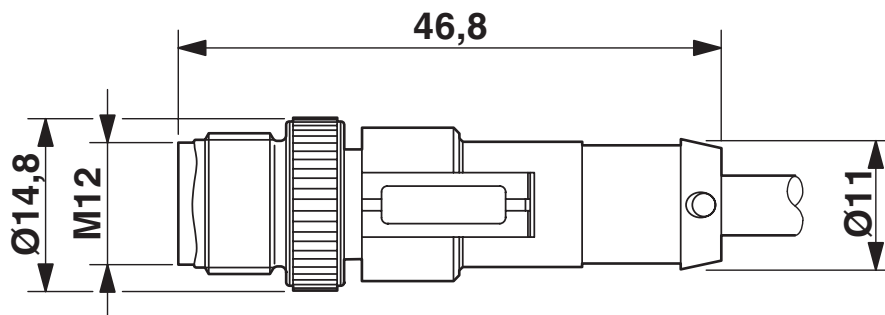
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1546660

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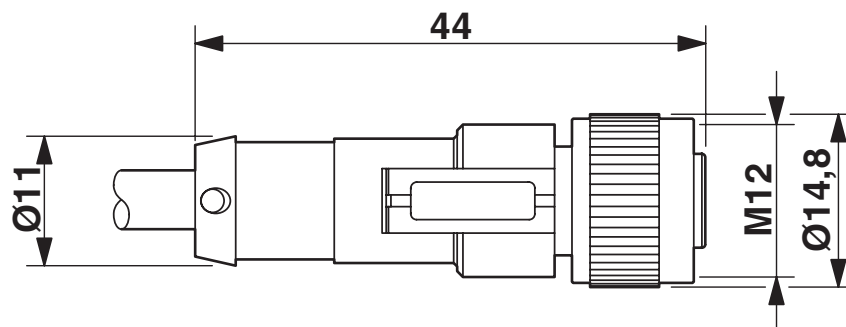
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



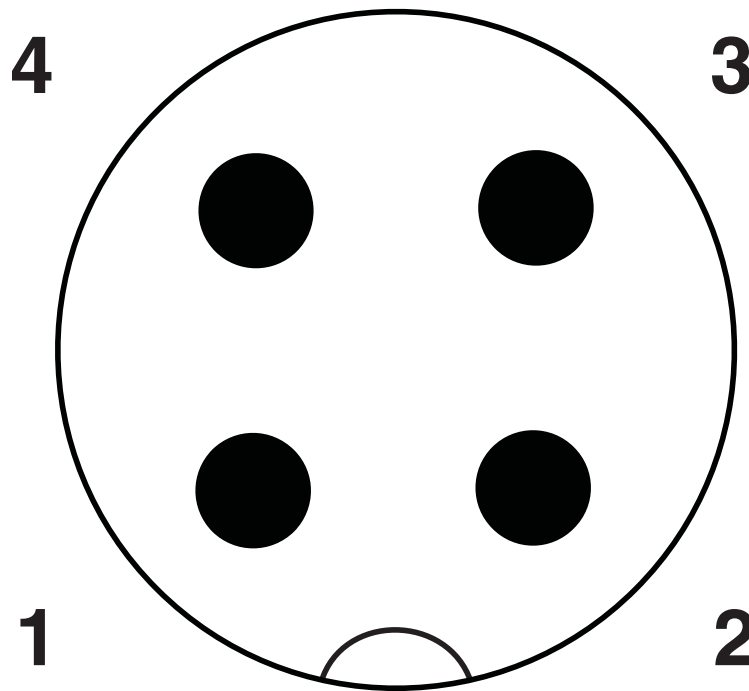
M12 x 1 socket, straight

# SAC-4P-M12MS/ 5,0-150/M12FS - Sensor/actuator cable

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Schematic diagram



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

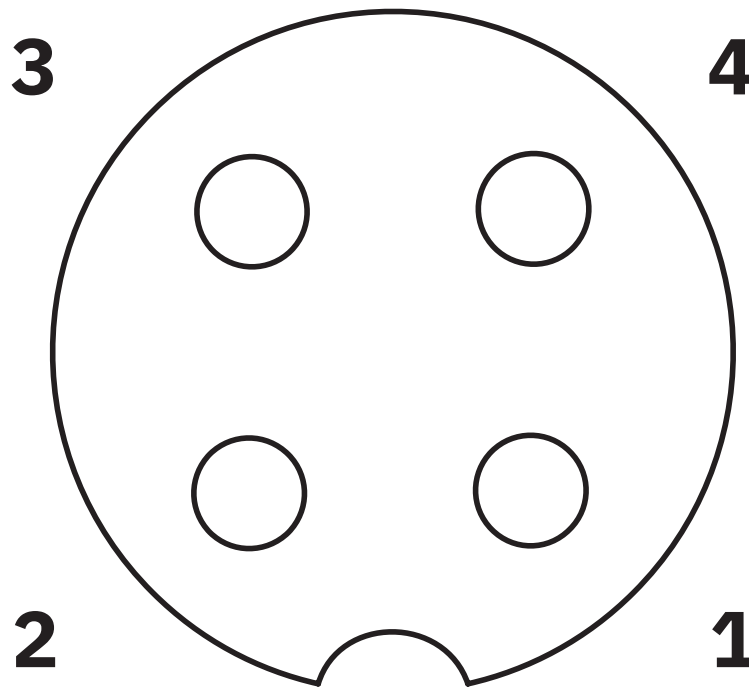
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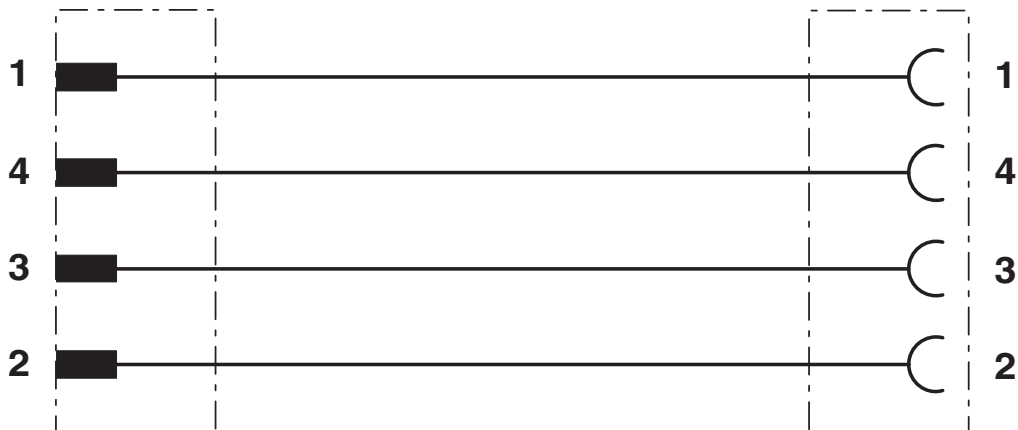
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Schematic diagram



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

Circuit diagram



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## Approvals

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 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	300 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	300 V	4 A	-	-

 <b>EAC-RoHS</b> Approval ID: RU D-DE.HB35.B.00387	
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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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