

# SAC-4P-M12MS/ 5,0-186/M12FS - Sensor/actuator cable



1509568

<https://www.phoenixcontact.com/in/products/1509568>

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Sensor/actuator cable, 4-position, PUR, black-gray RAL 7021, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 5 m

## Your advantages

- Easy and safe: 100% electrically tested plug-in components

## Commercial Data

Item number	1509568
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1
Product Key	BF1CCA
Catalog Page	Page 440 (C-2-2019)
GTIN	4017918899202
Weight per Piece (including packing)	306 g
Weight per Piece (excluding packing)	298.1 g
Customs tariff number	85444290
Country of origin	PL

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## Technical Data

### Product properties

Product type	Sensor/actuator cable
Number of positions	4
Application	Standard
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

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	250 V AC
	250 V DC
Nominal current $I_N$	4 A
Protective circuit	unwired

### 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

Coding type	A
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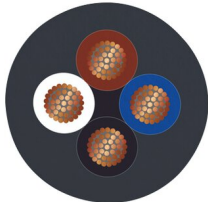
### Connection 2

Coding type	A
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## Cable/line

Cable length	5 m
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PUR POWER 0.75 mm<sup>2</sup> black [186]

Dimensional drawing	
Cable weight	57 kg/km
UL AWM Style	20549 / 1061 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR POWER 0.75 mm <sup>2</sup> black [186]
Conductor structure signal line	42x 0.15 mm
AWG signal line	18
Conductor cross section	4x 0.75 mm <sup>2</sup> (power line)
Wire diameter incl. insulation	1.75 mm ±0.05 mm
External cable diameter	5.9 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.23 mm (Core insulation) ≥ 0.76 mm (Outer cable sheath)
Overall twist	4 wires, twisted
Max. conductor resistance	max. 26 Ω/km (at 20 °C)
Insulation resistance	≥ 1 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D

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Smallest bending radius, movable installation	59 mm
Max. bending cycles	2000000
Flame resistance	according to UL 758/1581 (horizontal) in accordance with UL 758/1581 FT2
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
Other resistance	hydrolysis and microbe resistant Low adhesion abrasion-resistant Resistant to salt water
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation) -5 °C ... 80 °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) -25 °C ... 80 °C (cable, fixed installation) -5 °C ... 80 °C (Cable, flexible installation)

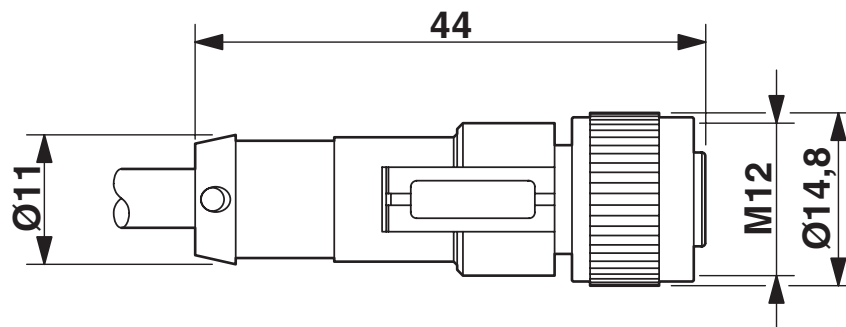
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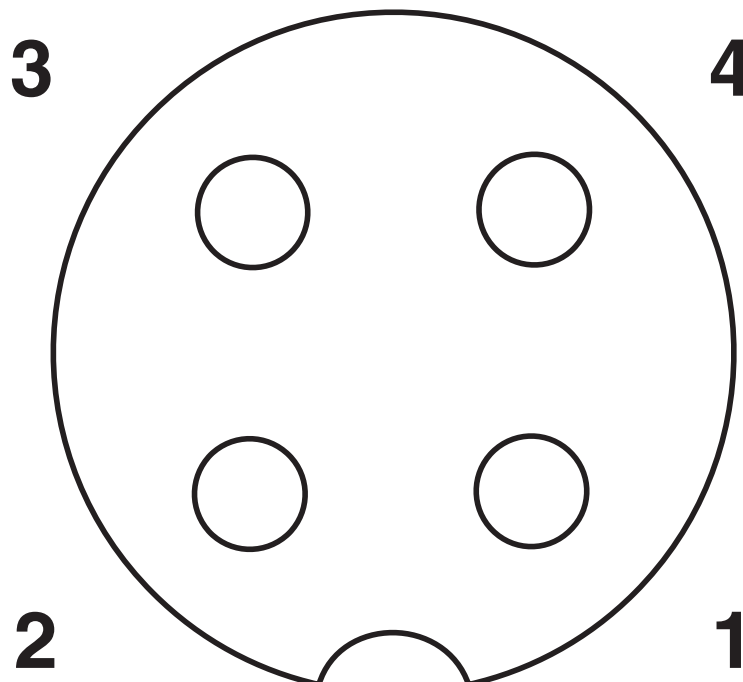
## Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



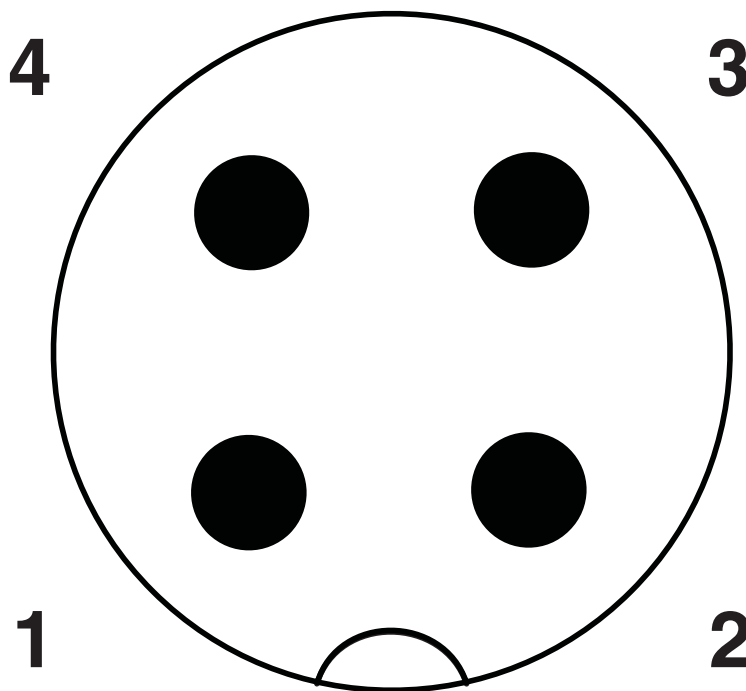
Pin assignment M12 socket, 4-pos., A-coded, view female side

# SAC-4P-M12MS/ 5,0-186/M12FS - Sensor/actuator cable

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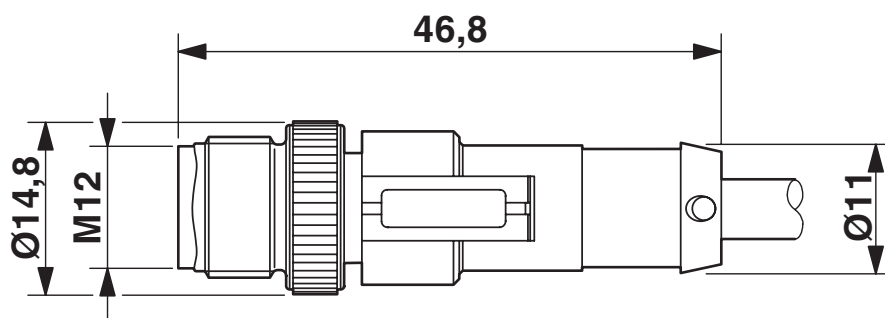
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Schematic diagram



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

Dimensional drawing



Plug, M12 x 1, straight, shielded

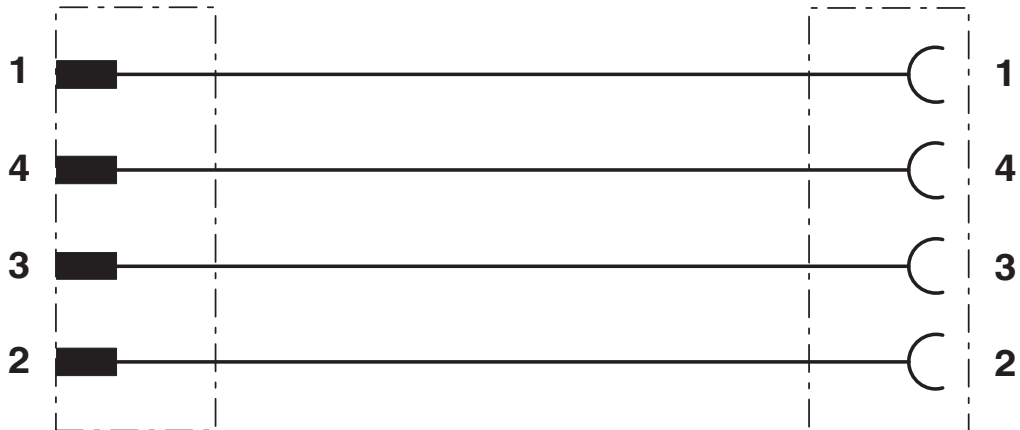
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Circuit diagram



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## Approvals



### EAC

Approval ID: RU C-DE.BL08.B.00286



### UL Listed

Approval ID: FILE E 221474

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	4 A	-	-



### cUL Listed

Approval ID: FILE E 221474

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	4 A	-	-



### EAC

Approval ID: RU D-DE.HB35.B.00387



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## Classifications

### ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

### ETIM

ETIM 8.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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