

# SAC-4P-MS/ 2,0-186/FS SCO - Sensor/actuator cable



1555716

<https://www.phoenixcontact.com/us/products/1555716>

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

## Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Save time, thanks to installation with SPEEDCON fast locking system
- High-performance: connectors and cables with a large conductor cross section for power supply

## Commercial Data

Item number	1555716
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF03
Product Key	BF1CCA
Catalog Page	Page 440 (C-2-2017)
GTIN	4046356173711
Weight per Piece (including packing)	134.9 g
Weight per Piece (excluding packing)	134.9 g
Customs tariff number	85444290
Country of origin	PL

## 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

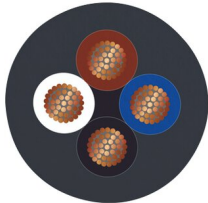
Type	Plug straight M12 SPEEDCON
Number of positions	4
Coding type	A
Number of positions	4
Locking type	SPEEDCON

### Connection 2

Type	Socket straight M12 SPEEDCON
Number of positions	4
Coding type	A
Number of positions	4
Locking type	SPEEDCON

## Cable/line

### 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)

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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
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
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

# SAC-4P-MS/ 2,0-186/FS SCO - Sensor/actuator cable

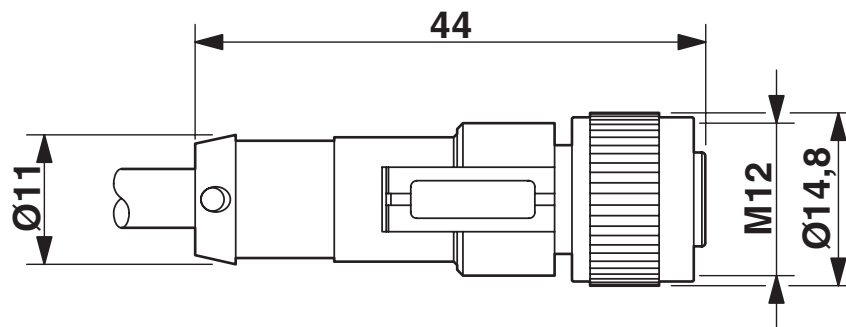


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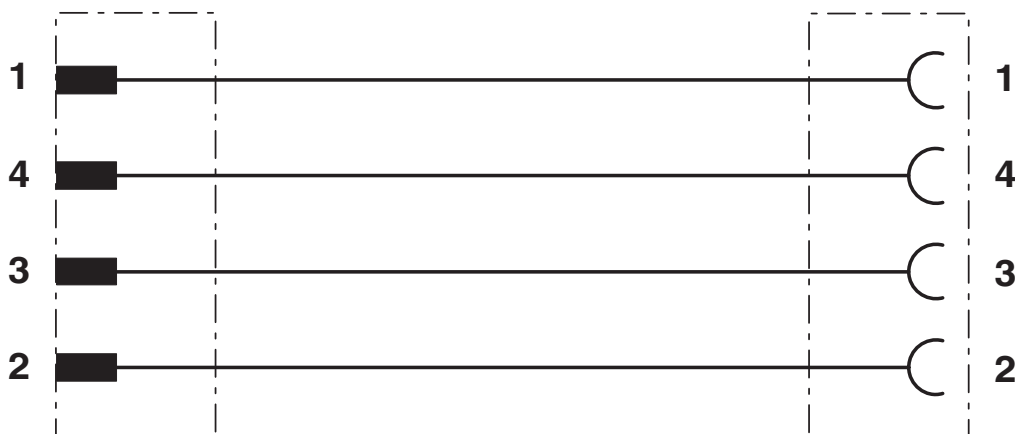
## Drawings

Dimensional drawing



M12-SPEEDCON socket, straight

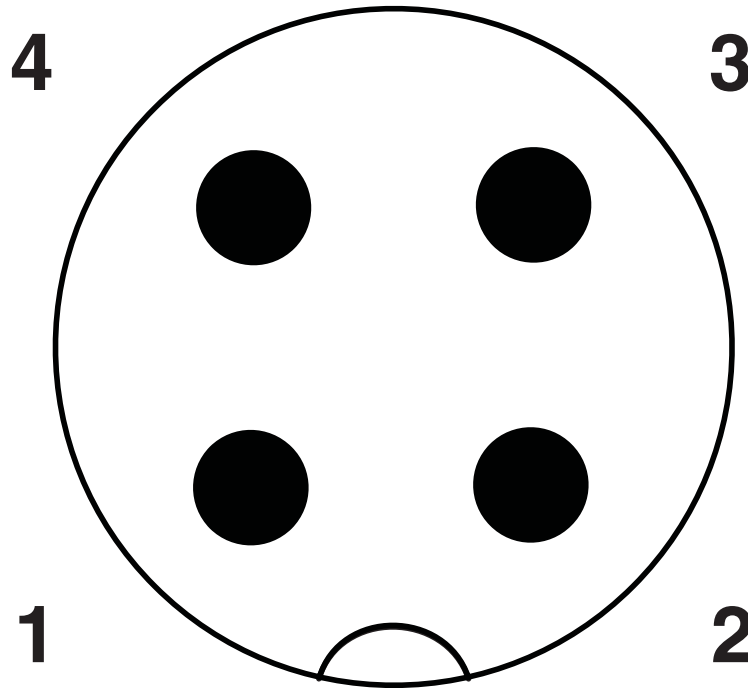
Circuit diagram



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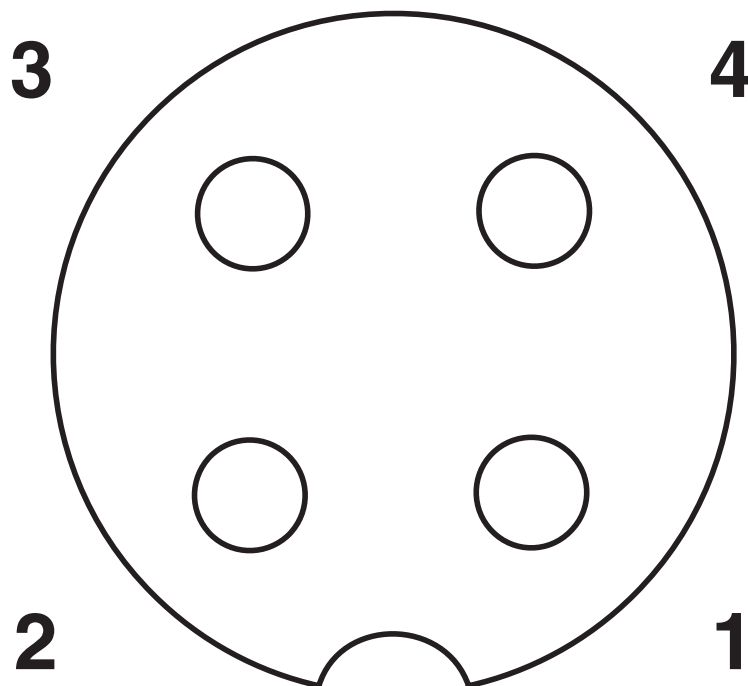
<https://www.phoenixcontact.com/us/products/1555716>

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

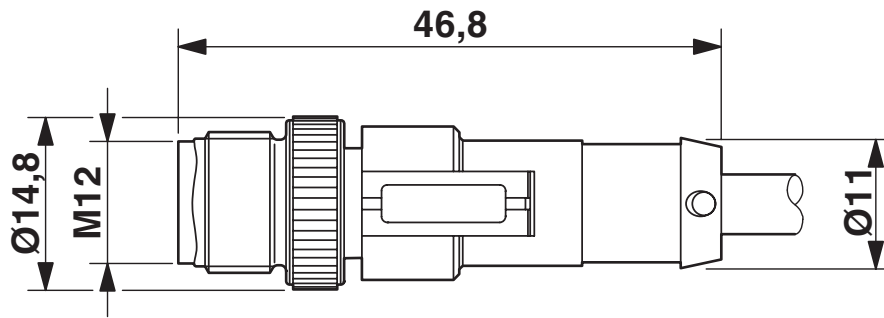
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Dimensional drawing



M12 SPEEDCON plug, straight

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1555716>



### 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-RoHS

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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