

## Sensor/actuator cable - SAC-4P-MS/ 2,0-186/FS SCO - 1555716

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




Sensor/actuator cable, 4-position, PUR, black-gray RAL 7021, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, cable length: 2 m

### 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



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 173711
GTIN	4046356173711

### Technical data

#### Dimensions

Length of cable	2 m
-----------------	-----

#### Ambient conditions

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

#### General

Rated current at 40°C	4 A
Rated voltage	250 V AC
	250 V DC
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	A - standard

# Sensor/actuator cable - SAC-4P-MS/ 2,0-186/FS SCO - 1555716

## Technical data

### General

Status display	No
Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100

### 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	Zinc die-cast, nickel-plated
Sealing material	NBR

### Standards and Regulations

Flammability rating according to UL 94	HB
--	----

### Cable

Cable type	PUR POWER 0.75 mm <sup>2</sup> black
Cable type (abbreviation)	186
Cable abbreviation	LiY11Y
UL AWM style	20549 / 1061 (80°C/300 V)
Conductor cross section	4x 0.75 mm <sup>2</sup> (power line)
AWG signal line	18
Conductor structure signal line	42x 0.15 mm
Core diameter including insulation	1.75 mm ±0.05 mm
Thickness, insulation	≥ 0.23 mm (Core insulation)
	≥ 0.76 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	black-gray RAL 7021
External cable diameter D	5.9 mm ±0.15 mm
Smallest bending radius, movable installation	59 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Bending radius	59 mm
Traversing path	5 m
Traversing rate	3 m/s
Acceleration	5 m/s <sup>2</sup>
Cable weight	57 kg/km

# Sensor/actuator cable - SAC-4P-MS/ 2,0-186/FS SCO - 1555716

## Technical data

### Cable

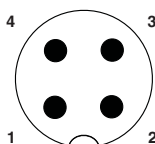
Outer sheath, material	PUR
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 1 MΩ*km (at 20 °C)
Conductor resistance	max. 26 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Flame resistance	according to UL 758/1581 (horizontal)
	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 Product Compliance

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

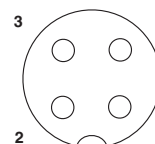
## Drawings

Schematic diagram



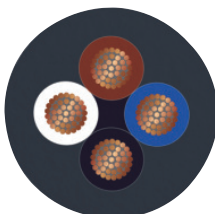
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



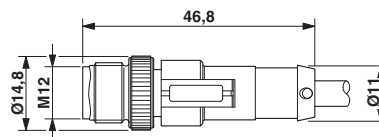
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



PUR POWER 0.75 mm² black [186]

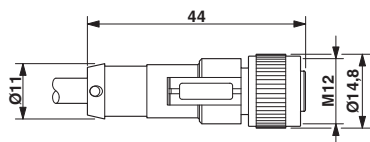
Dimensional drawing



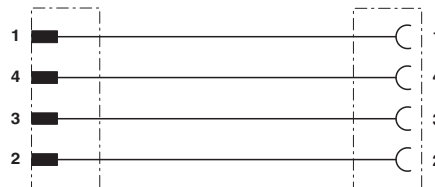
M12 SPEEDCON plug, straight

# Sensor/actuator cable - SAC-4P-MS/ 2,0-186/FS SCO - 1555716

Dimensional drawing



Circuit diagram



M12-SPEEDCON socket, straight

Contact assignment of the M12 plug and the M12 socket

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 221474
Nominal voltage UN		300 V	
Nominal current IN		4 A	

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 221474
Nominal voltage UN		300 V	
Nominal current IN		4 A	

EAC		EAC-Zulassung
-----	--	---------------

cULus Listed	
--------------	--

---

Phoenix Contact 2018 © - all rights reserved  
<http://www.phoenixcontact.com>

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