

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

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, 12-position, PUR halogen-free, black RAL 9005, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: 3 m

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Save time, thanks to installation with SPEEDCON fast locking system
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Save space – with high-pos. connectors



### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 046356 456364 |
| GTIN         | 4046356456364                                                                                           |

### Technical data

#### Dimensions

|                                            |                           |
|--------------------------------------------|---------------------------|
| Length of cable                            | 3 m                       |
| Stripping length of the free conductor end | 50 mm (Partial stripping) |

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |
|                                 | IP68                             |

#### General

|                       |         |
|-----------------------|---------|
| Rated current at 40°C | 1.5 A   |
| Rated voltage         | 30 V AC |
|                       | 30 V DC |

# Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

## Technical data

### General

|                              |                               |
|------------------------------|-------------------------------|
| Number of positions          | 12                            |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | unwired                       |
| Overvoltage category         | II                            |
| Degree of pollution          | 3                             |
| Torque                       | 0.4 Nm (M12 connector)        |

### Material

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | V0                                          |
| Contact material                       | CuZn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | PA 6.6                                      |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Material, knurls                       | Zinc die-cast, nickel-plated                |

### Standards and Regulations

|                                        |                                                             |
|----------------------------------------|-------------------------------------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-101                               |
| Resistance to oil                      | DIN VDE 0472 Part 803, test type B                          |
| Other resistance                       | Hydrolysis and microbe resistant as per VDE 0282 section 10 |
| Flammability rating according to UL 94 | V0                                                          |

### Cable

|                                    |                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------|
| Conductor cross section            | 12x 0.14 mm² (Signal line)                                                             |
| AWG signal line                    | 26                                                                                     |
| Conductor structure signal line    | 18x 0.10 mm                                                                            |
| Core diameter including insulation | 1 mm ±0.05 mm (Signal line)                                                            |
| Wire colors                        | white, brown, green, yellow, gray, pink, blue, red, black, violet, gray/pink, red/blue |
| Overall twist                      | 12 wires twisted in layers                                                             |
| External sheath, color             | black RAL 9005                                                                         |
| External cable diameter D          | 7.2 mm                                                                                 |
| Number of bending cycles           | 4000000                                                                                |
| Bending radius                     | 54 mm                                                                                  |
| Traversing path                    | 10 m                                                                                   |
| Traversing rate                    | 3 m/s                                                                                  |
| Acceleration                       | 10 m/s²                                                                                |
| Outer sheath, material             | PUR                                                                                    |
| Material conductor insulation      | PP                                                                                     |
| Conductor material                 | Tin-plated Cu litz wires                                                               |
| Conductor resistance               | 142 Ω/km                                                                               |

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

### Technical data

#### Cable

|                                 |                                                             |
|---------------------------------|-------------------------------------------------------------|
| Special properties              | Low adhesion surface                                        |
| Flame resistance                | in acc. to UL VW1                                           |
|                                 | DIN EN 60332-1-2                                            |
| Halogen-free                    | in accordance with DIN EN 50267-2-1                         |
| Resistance to oil               | DIN VDE 0472 Part 803, test type B                          |
| Other resistance                | Hydrolysis and microbe resistant as per VDE 0282 section 10 |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A  |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                |
|                                 | -5 °C ... 80 °C (cable, flexible installation)              |

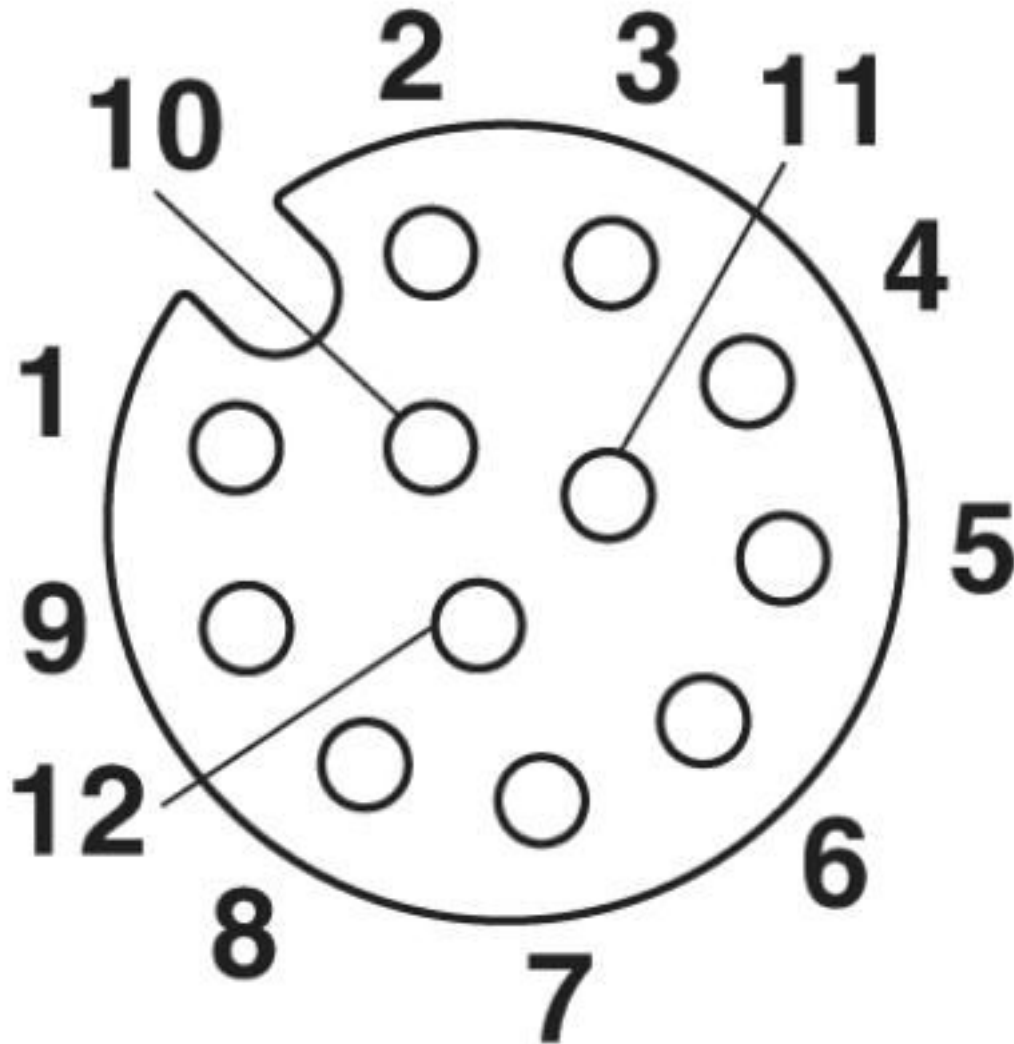
#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

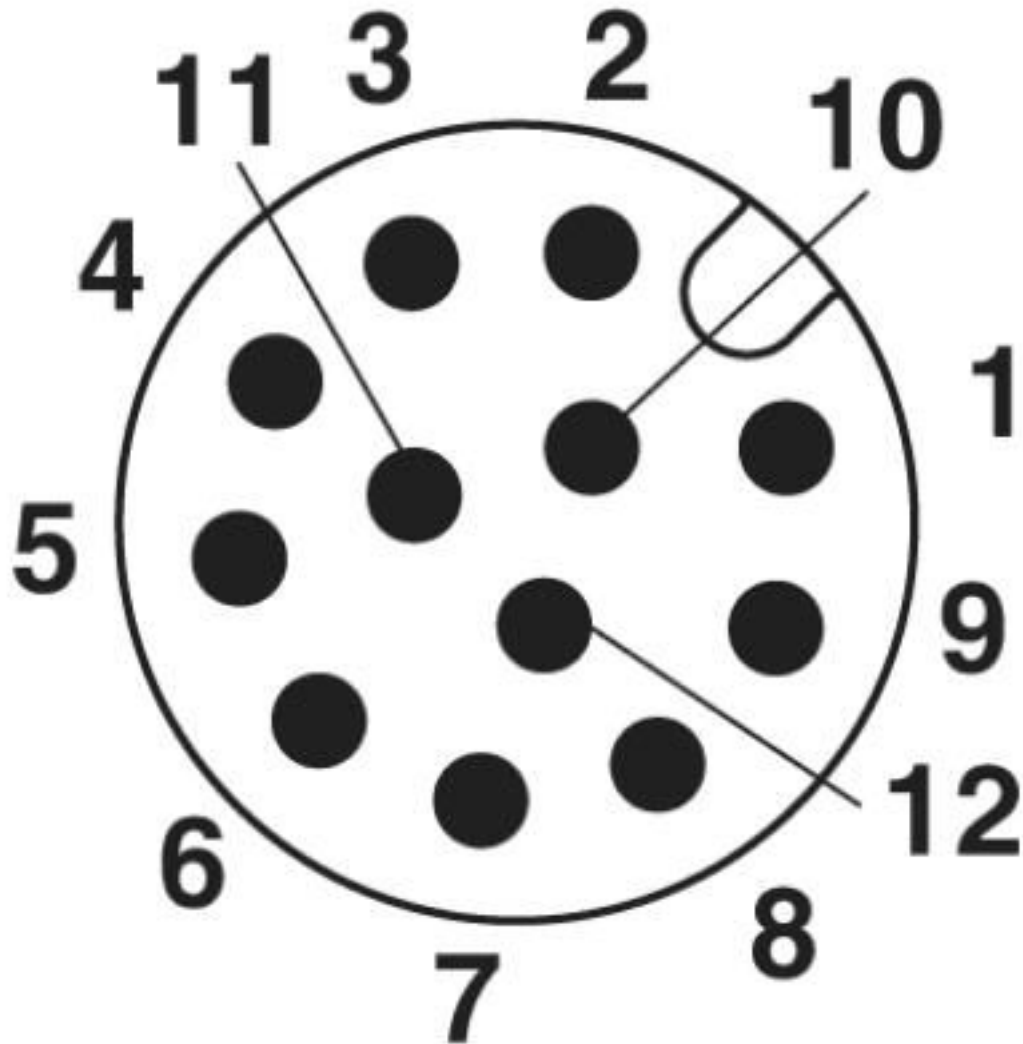
Schematic diagram



Pin assignment M12, 12-pos., female side view

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

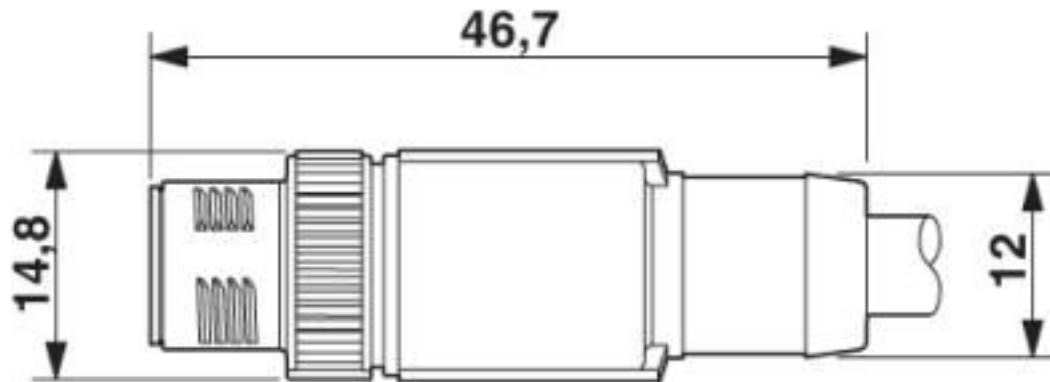
Schematic diagram



Pin assignment M12 male connector, 12-pos., male side view

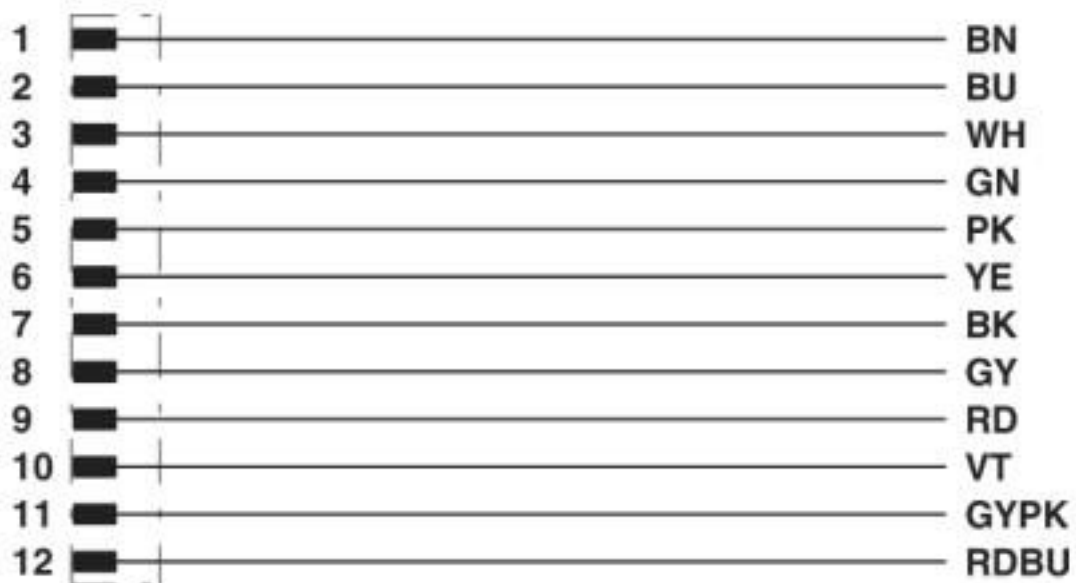
## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

Dimensional drawing



M12 SPEEDCON plug, straight

Circuit diagram



Contact assignment of the M12 plug

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

Cable cross section



PUR halogen-free black [PUR]

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27060311 |
| eCl@ss 4.0    | 27060300 |
| eCl@ss 4.1    | 27060300 |
| eCl@ss 5.0    | 27061800 |
| eCl@ss 5.1    | 27061800 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 8.0    | 27279218 |
| eCl@ss 9.0    | 27060311 |

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

### Classifications

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

### Approvals

#### Approvals

Approvals

EAC / UL Listed

Ex Approvals

#### Approval details

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00286 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 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 | 30 V                                                                                |                                                                                                                                                       |               |
| Nominal current IN | 1 A                                                                                 |                                                                                                                                                       |               |

### Accessories

Accessories

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

### Accessories

#### Conductor marking

Insert label - PABA WH/23 - 1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

Insert label - PABA YE/23 - 1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

#### Corrugated pipe

Protective hose - WP-PA HF 13,0 BK - 3240681



Polyamide protective hose, inflammability class V0, UV resistant

Protective hose - WP-PA HF-HB 13,0 BK - 3240839



Polyamide protective hose, inflammability class HB, UV resistant

#### Cutting tools

Diagonal cutter - CUTFOX-S VDE - 1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

#### Marker pen

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

### Accessories

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

---

### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



---

### Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

---

### Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

---

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

---

### Stripping tool

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

### Accessories

Stripping tool - WIREFOX SAC-1 - 1212757



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

### Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

## Sensor/actuator cable - SAC-12P-MS/ 3,0-PUR SCO - 1430543

### Accessories

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

---

Phoenix Contact 2020 © - 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>

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Phoenix Contact:](#)

[1430543](#)