# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

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://download.phoenixcontact.com)



Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12 SPEEDCON, A-coded, on Valve connector BI (11 mm), with 1 LED, connected with Z diode, Cable length: 1.5 m

## Product Features

- Easy and safe: 100% electrically tested plug-in components
- Robust valve connector with Zener diode as protective circuit
- Save time, thanks to installation with SPEEDCON rapid interlock system
- Convenient: increased machine availability thanks to quick and easy diagnostics
- Our standard: robust halogen-free PUR cable

## Key commercial data

| | |
|---|---|
| **package_quantity** | 1 |
| **GTIN** | 4046356413503 |

## Technical data

### Dimensions

| | |
|---|---|
| **Length of cable** | 1.5 m |

### Ambient conditions

| | |
|---|---|
| **Ambient temperature (operation)** | -25 °C ... 90 °C (Plug / socket) |
| **Ambient temperature (operation)** | -20 °C ... 85 °C (valve plug) |
| **Degree of protection** | IP65 |
| **Degree of protection** | IP67 |

### General

| | |
|---|---|
| **Rated current at 40°C** | 4 A |
| **Rated voltage** | 24 V |
| **Number of positions** | 3 |
| **Contact resistance** | ≤ 5 mΩ |
| **Insulation resistance** | ≥ 100 MΩ |
| **Coding** | A - standard |
| **Standards/regulations** | M12 connector IEC 61076-2-101 |

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

## Technical data

### General

| | |
|---|---|
| **Status display** | 1 LED |
| **Protective circuit/component** | Z diode |
| **Surge voltage category** | III |
| **Pollution degree** | 3 |
| **Insertion/withdrawal cycles** | ≥ 100 (M12 connector) |
| **Torque** | 0.4 Nm (M12 connector) |
| **Torque** | 0.6 Nm (Valve connector) |

### Material

| | |
|---|---|
| **Inflammability class according to UL 94** | HB |
| **Contact material** | CuSn |
| **Contact surface material** | Ni/Au |
| **Contact carrier material** | TPU GF |
| **Material of grip body** | TPU |
| **Valve plug contact material** | CuSn |
| **Valve plug contact surface material** | Sn |
| **Valve plug contact insert material** | PA 66 |
| **Material housing valve plug** | TPU |
| **Material, knurls** | Zinc die-cast, nickel-plated |
| **Sealing material** | TPU (Seal molded) |

### Cable

| | |
|---|---|
| **Cable type** | PUR halogen-free black |
| **Cable type (abbreviation)** | PUR |
| **Cable abbreviation** | Li9Y11Y-HF |
| **UL AWM style** | 20549 |
| **Conductor cross section** | 3x 0.5 mm² |
| **AWG signal line** | 20 |
| **Conductor structure signal line** | 28x 0.15 mm |
| **Core diameter including insulation** | 1.5 mm ±0.05 mm (signal line) |
| **Wire colors** | black 1, black 2, green/yellow |
| **Overall twist** | 3 wires, twisted |
| **External sheath, color** | Black-gray RAL 7021 |
| **External cable diameter D** | 4.5 mm ± 0.2 mm |
| **Smallest bending radius, fixed installation** | 22.5 mm |
| **Number of bending cycles** | 15000000 |
| **Bending radius** | 50 mm |
| **Traversing path** | 0.9 m |
| **Traversing rate** | 5 m/s |
| **Acceleration** | 30 m/s² |
| **Outer sheath, material** | PUR |

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

## Technical data

### Cable

| | |
|---|---|
| **Material conductor insulation** | PP |
| **Conductor material** | Bare Cu litz wires |
| **Insulation resistance** | min. 20 MΩ*km |
| **Conductor resistance** | 39 Ω/km (at 20 °C) |
| **Nominal voltage, cable** | ≤ 300 V |
| **Test voltage, cable** | ≥ 1200 V |
| **Flame resistance** | According to DIN VDE 0482 |
| **Flame resistance** | According to DIN EN 50265-2-1 |
| **Halogen-free** | in accordance with DIN VDE 0472 part 815 |
| **Other resistance** | Largely oil-resistant |
| **Other resistance** | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| **Ambient temperature (operation)** | -40 °C ... 80 °C (cable, fixed installation) |
| **Ambient temperature (operation)** | -20 °C ... 80 °C (cable, flexible installation) |

## classifications

### eCl@ss

| | |
|---|---|
| **eCl@ss 4.0** | 27060306 |
| **eCl@ss 4.1** | 27060306 |
| **eCl@ss 5.0** | 27061801 |
| **eCl@ss 5.1** | 27061801 |
| **eCl@ss 6.0** | 27061801 |
| **eCl@ss 7.0** | 27061801 |
| **eCl@ss 8.0** | 27061801 |

### ETIM

| | |
|---|---|
| **ETIM 3.0** | EC001855 |
| **ETIM 4.0** | EC001855 |
| **ETIM 5.0** | EC001855 |

### UNSPSC

| | |
|---|---|
| **UNSPSC 6.01** | 31251501 |
| **UNSPSC 7.0901** | 31251501 |
| **UNSPSC 11** | 31251501 |
| **UNSPSC 12.01** | 31251501 |
| **UNSPSC 13.2** | 31251501 |

## approvals

GOST /

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

## approvals

Approval details

GOST

## accessories

**Mounting material**

SAC-V-SCREW-M3-29 KNURL - 1403779



**Screwdriver tools**

SF-BIT-PH 1-70 - 1212582



TSD-M SAC-BIT ADAPTER - 1212600



SAC BIT M12-D15 - 1208432



**Protective cap**

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

accessories

PROT-M12 FS-PA-CHAIN - 1430873



**Safety locking**

SAC-M12-EXCLIP-M - 1558988



**Conductor marking**

PABA WH/15 - 1013151



PABA YE/15 - 1013698



PABA RD/15 - 1013944



# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

## accessories

**Marker carrier cable**

PATO 2/15 - 1013122



PATO 3/15 - 1013135



PATO 4/15 - 1013148



**Marker pen**

B-STIFT - 1051993



**Torque tool**

TSD 04 SAC - 1208429



# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

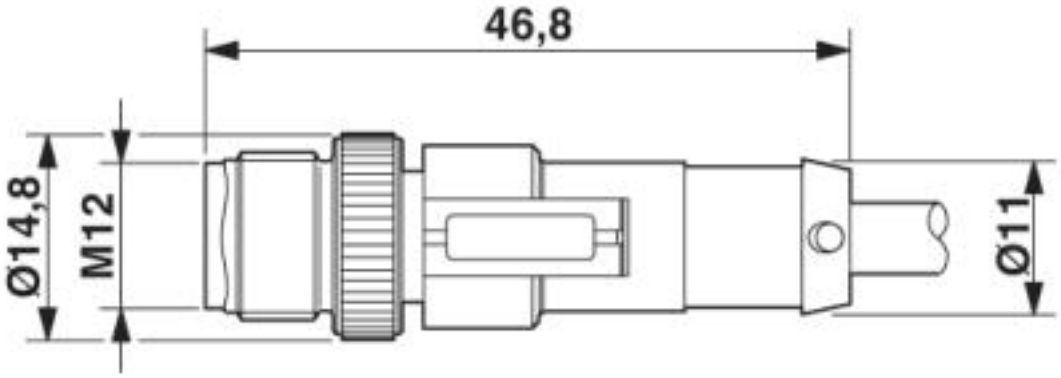
accessories

TSD-M 1,2NM - 1212224



## Drawings

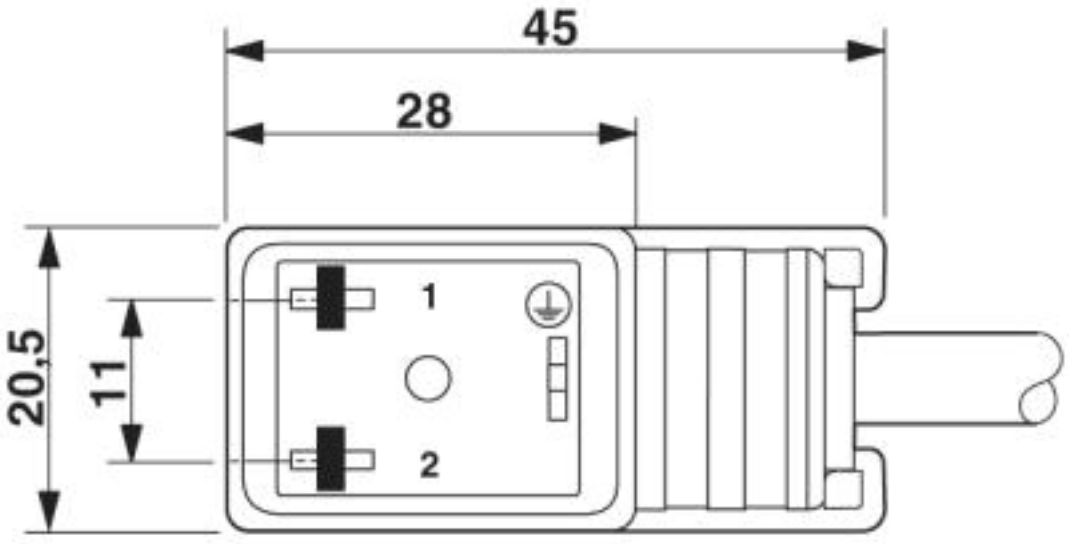
Dimensioned drawing




M12 x 1 plug, straight

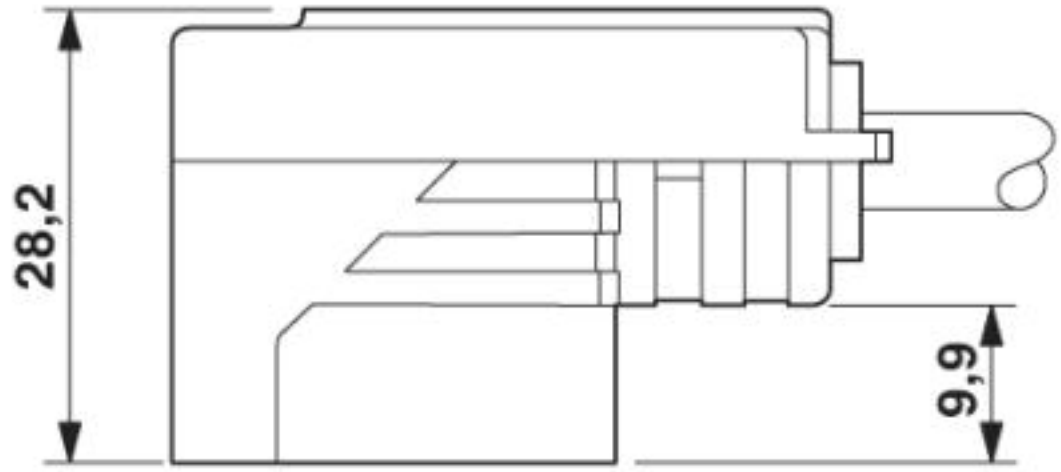
# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

Dimensioned drawing




Valve connector, type BI

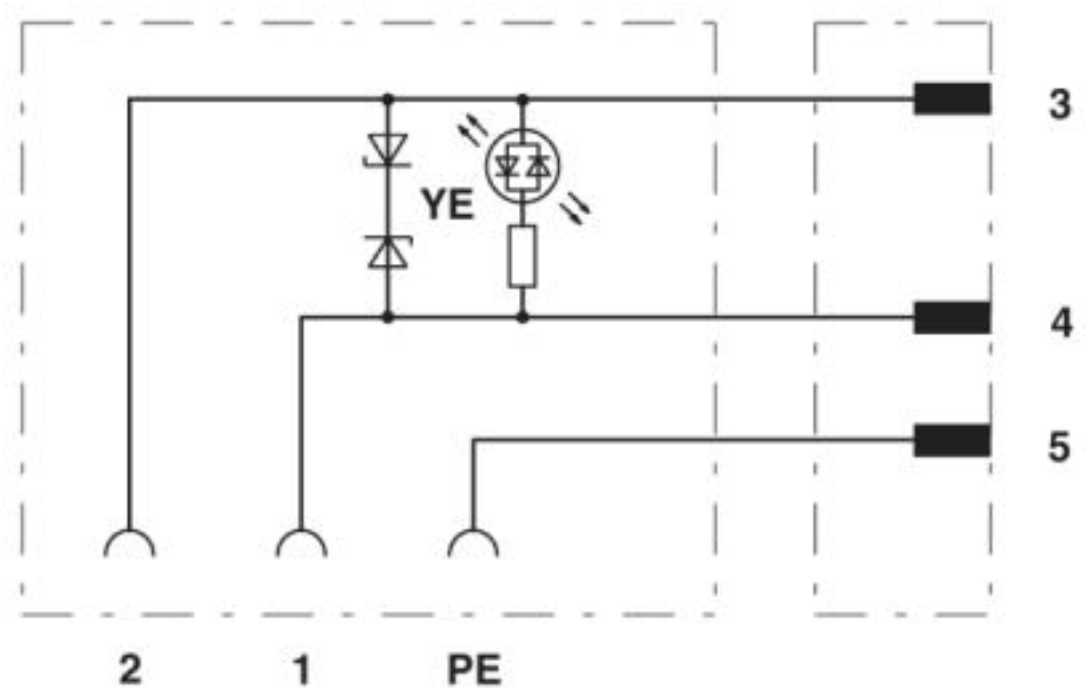
Dimensioned drawing




Valve connector, type BI, side view

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

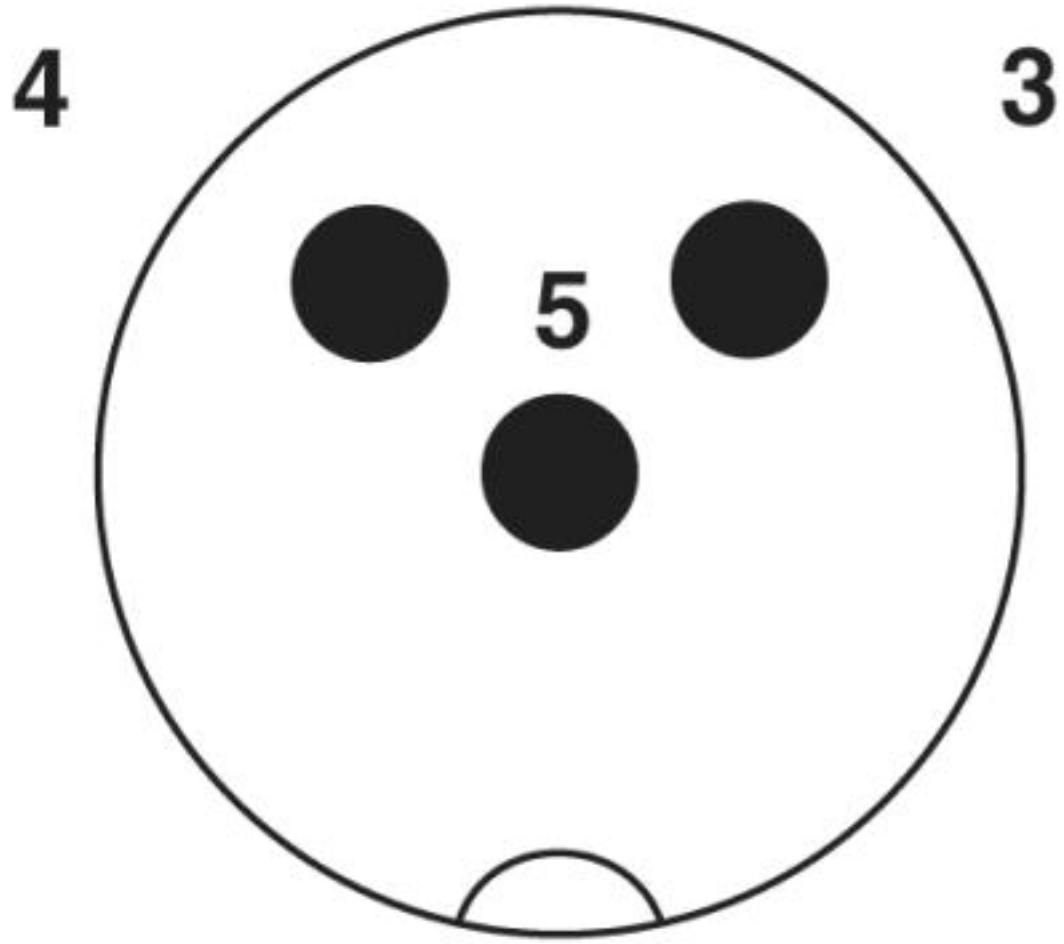
Circuit diagram




Contact assignment of M12 plug and valve connector

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

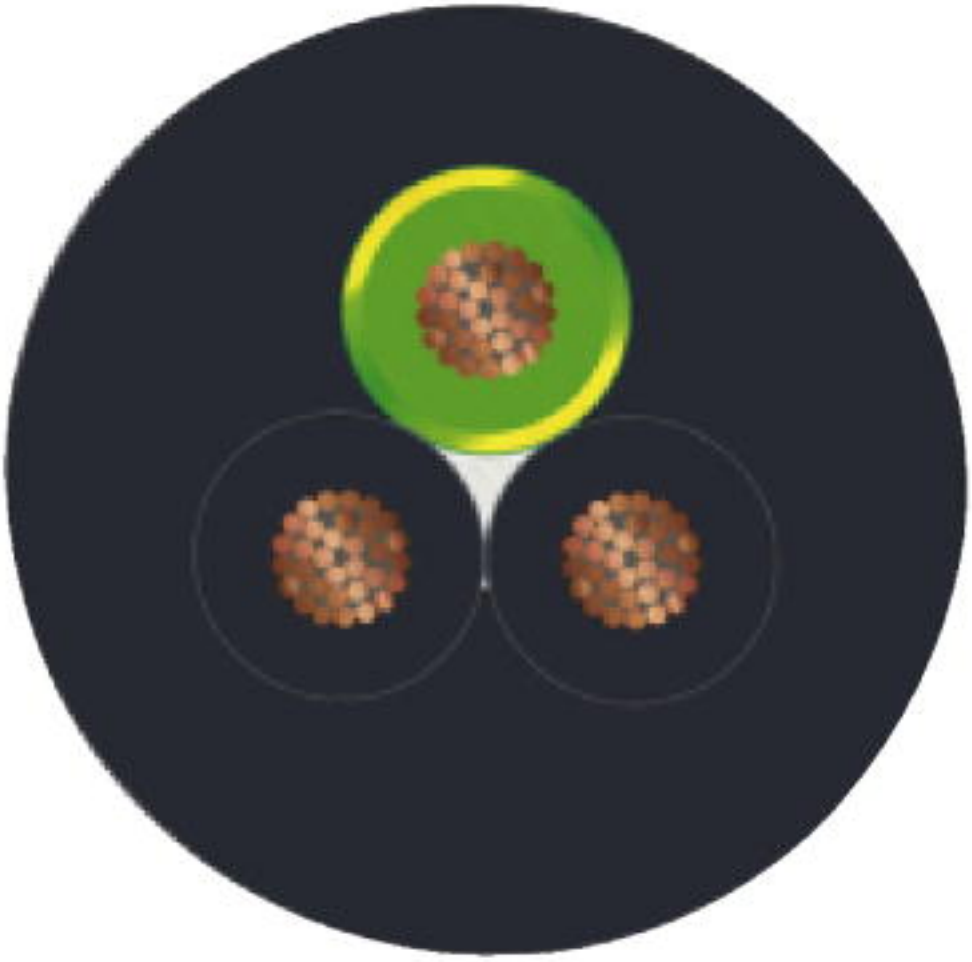
Schematic diagram




Pin assignment M12 plug, 3-pos., valve connector

# Sensor/Actuator cable - SAC-3P-MS/ 1,5-PUR/BI-1L-Z SCO - 1435153

Cable cross section



PUR halogen-free black [PUR]

© Phoenix Contact 2013 - all rights reserved
http://www.phoenixcontact.com