

# SAC-5P-10,0-PUR/P12FS SH - Sensor/actuator cable



1476889

<https://www.phoenixcontact.com/gb/products/1476889>

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 documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded (Advanced Shielding Technology), Socket straight M12 Push Pull, coding: A, on free cable end, cable length: 10 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1476889       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AF1CKE        |
| Product key                          | AF1CKE        |
| GTIN                                 | 4063151890834 |
| Weight per piece (including packing) | 458.1 g       |
| Weight per piece (excluding packing) | 458.1 g       |
| Country of origin                    | PL            |

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard              |
| Number of positions  | 5                     |
| No. of cable outlets | 1                     |
| Shielded             | yes                   |
| Coding               | A                     |

### Insulation characteristics

|                      |    |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution  | 3  |

### Material specifications

|                                        |                    |
|----------------------------------------|--------------------|
| Flammability rating according to UL 94 | V0                 |
| Outer sheath, material                 | PUR                |
| Conductor material                     | Bare Cu litz wires |

### Electrical properties

|                           |                            |
|---------------------------|----------------------------|
| Insulation resistance     | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$     | 48 V AC                    |
|                           | 60 V DC                    |
| Nominal current $I_N$     | 4 A                        |
| Max. conductor resistance | 58 $\Omega/\text{km}$      |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
| Max. bending cycles         | 10000000   |

### Signaling

|                        |    |
|------------------------|----|
| Status display         | no |
| Status display present | no |

### Connection data

#### Connection technology

|                   |           |
|-------------------|-----------|
| Connection method | Push-Pull |
|-------------------|-----------|

#### Conductor connection

|                   |           |
|-------------------|-----------|
| Connection method | Push-Pull |
|-------------------|-----------|

### Connector

# SAC-5P-10,0-PUR/P12FS SH - Sensor/actuator cable



1476889

<https://www.phoenixcontact.com/gb/products/1476889>

## Connection 1

|                     |                               |
|---------------------|-------------------------------|
| Type                | Socket straight M12 Push Pull |
| Number of positions | 5                             |
| Locking type        | Push Pull                     |
| Coding type         | A                             |

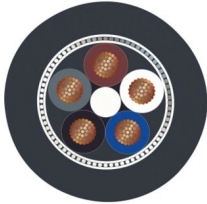
## Connection 2

|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

## Cable/line

|              |      |
|--------------|------|
| Cable length | 10 m |
|--------------|------|

## PUR halogen-free black [PUR]

|                                 |                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Cable weight                    | 43 kg/km                                                                            |
| UL AWM Style                    | 20549 / 10493 (80°C/300 V)                                                          |
| Number of positions             | 5                                                                                   |
| Shielded                        | yes                                                                                 |
| Cable type                      | PUR halogen-free black [PUR]                                                        |
| Conductor structure signal line | 42x 0.10 mm                                                                         |
| AWG signal line                 | 22                                                                                  |
| Conductor cross section         | 5x 0.34 mm <sup>2</sup> (Signal line)                                               |
| Wire diameter incl. insulation  | 1.27 mm ±0.02 mm (Signal line)                                                      |
| External cable diameter         | 5.25 mm ±0.2 mm                                                                     |
| Outer sheath, material          | PUR                                                                                 |
| External sheath, color          | black-gray RAL 7021                                                                 |
| Conductor material              | Bare Cu litz wires                                                                  |
| Material wire insulation        | PP                                                                                  |
| Single wire, color              | brown, white, blue, black, gray                                                     |
| Thickness, insulation           | ≥ 0.21 mm                                                                           |
| Thickness, outer sheath         | approx. 0.50 mm                                                                     |
| Overall twist                   | 5 wires around filler to the core                                                   |
| Optical shield covering         | 80 %                                                                                |
| Max. conductor resistance       | max. 57 Ω/km (at 20 °C)                                                             |
| Insulation resistance           | 70 GΩ*km (at 20 °C)                                                                 |
| Nominal voltage, cable          | 300 V (at 20 °C)                                                                    |
| Test voltage Core/Core          | 3000 V (at 20 °C)                                                                   |

# SAC-5P-10,0-PUR/P12FS SH - Sensor/actuator cable



1476889

<https://www.phoenixcontact.com/gb/products/1476889>

|                                               |                                                                                                                                        |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Smallest bending radius, fixed installation   | 26 mm                                                                                                                                  |
| Smallest bending radius, movable installation | 52 mm (up to +60 °C)                                                                                                                   |
| Dynamic load capacity (bending)               | Max. bending cycles: 10000000, Bending radius: 52 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup> |
| Dynamic load capacity (torsion)               | Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.                                                       |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                                                                                               |
|                                               | in accordance with DIN EN 50267-2-1                                                                                                    |
| Flame resistance                              | in accordance with UL 758/1581 FT2                                                                                                     |
|                                               | DIN EN 60332-2-2 (20 s)                                                                                                                |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                                                                                    |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents                                                                             |
|                                               | hydrolysis and microbe resistant                                                                                                       |
|                                               | Resistant to salt water                                                                                                                |
|                                               | partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)                                                                           |
|                                               | abrasion-resistant                                                                                                                     |
| Special properties                            | Flexible cable conduit capable                                                                                                         |
|                                               | Silicone-free                                                                                                                          |
|                                               | Free of substances which would hinder coating with paint or varnish                                                                    |
|                                               | Low adhesion surface                                                                                                                   |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)                                                                                           |
|                                               | -25 °C ... 80 °C (Cable, flexible installation)                                                                                        |

## Environmental and real-life conditions

### Ambient conditions

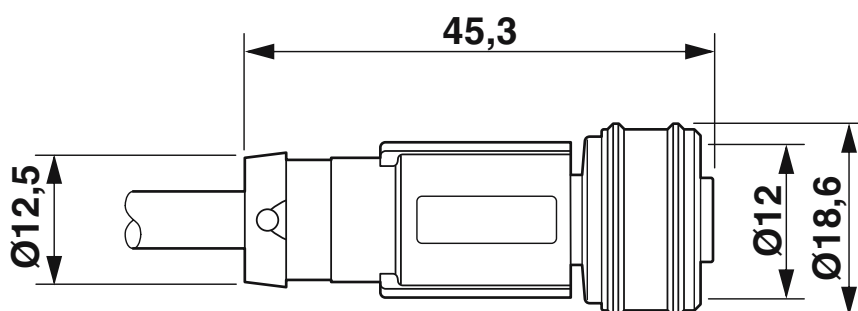
|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Degree of protection            | IP65                                            |
|                                 | IP67                                            |
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket)                |
|                                 | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -25 °C ... 80 °C (Cable, flexible installation) |

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12-Push-Pull   |
| Standards/specifications | IEC 61076-2-010 |

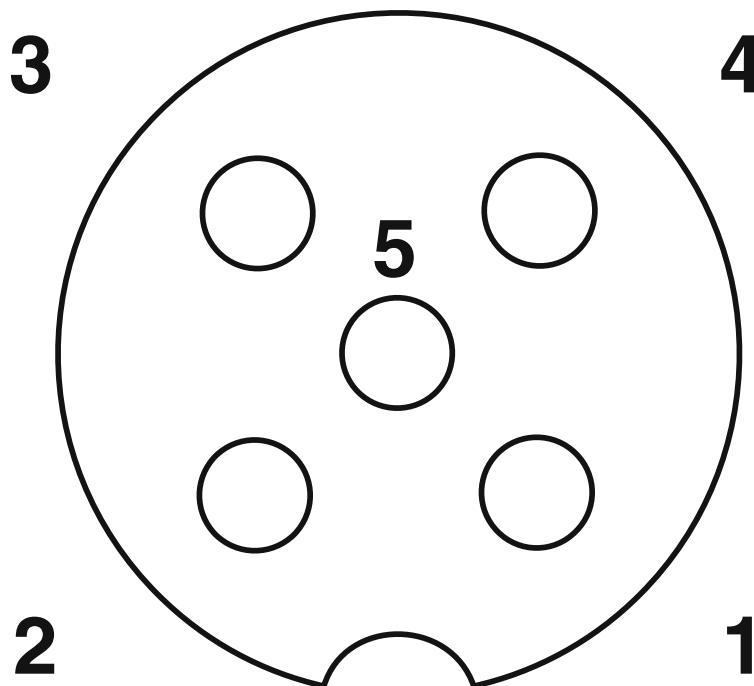
## Drawings

Dimensional drawing



M12 push-pull female, straight, shielded

Schematic diagram

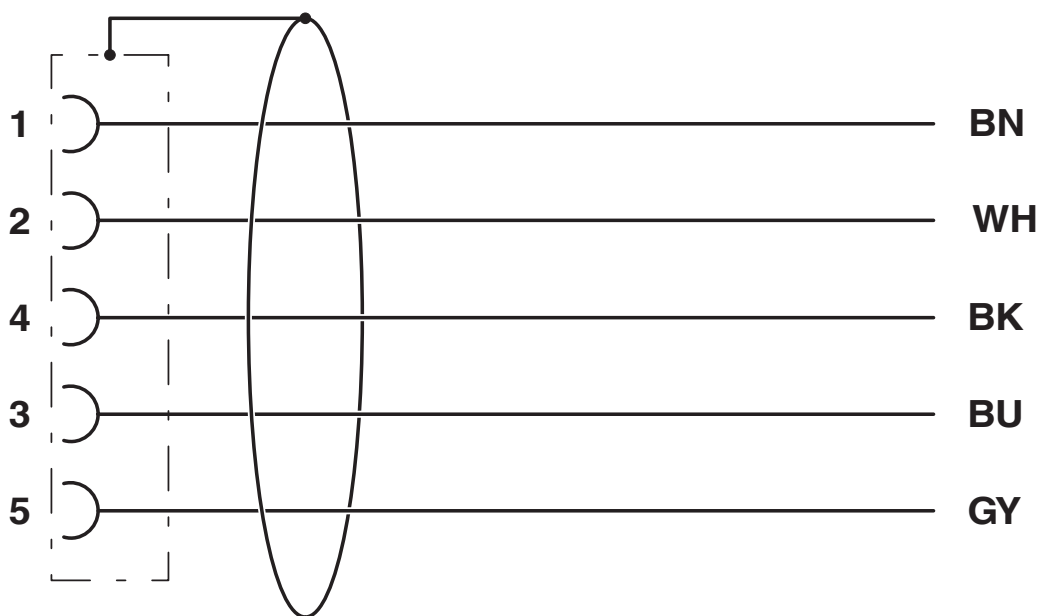


Pin assignment M12 socket, 5-pos., A-coded, view female side

1476889

<https://www.phoenixcontact.com/gb/products/1476889>

Circuit diagram



Contact assignment of the M12 socket

# SAC-5P-10,0-PUR/P12FS SH - Sensor/actuator cable



1476889

<https://www.phoenixcontact.com/gb/products/1476889>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
|-------------|----------|

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

# SAC-5P-10,0-PUR/P12FS SH - Sensor/actuator cable



1476889

<https://www.phoenixcontact.com/gb/products/1476889>

## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)