

SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627  
<https://www.phoenixcontact.com/us/products/1415627>

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, 4-position, PVC, black RAL 9005, Plug angled M12, coding: A, on Socket straight M12, coding: A, cable length: 0.3 m

Your advantages

- Easy and safe: 100 % electrically tested plug-in components

Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1415627             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF03                |
| Product key                          | BF1CCA              |
| Catalog page                         | Page 196 (C-2-2019) |
| GTIN                                 | 4055626050065       |
| Weight per piece (including packing) | 29.28 g             |
| Weight per piece (excluding packing) | 25.516 g            |
| Customs tariff number                | 85444290            |
| Country of origin                    | DE                  |

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627

<https://www.phoenixcontact.com/us/products/1415627>

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard              |
| Number of positions  | 4                     |
| 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

|                       |                           |
|-----------------------|---------------------------|
| Insulation resistance | $\geq 10 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 250 V AC                  |
|                       | 250 V DC                  |
| Nominal current $I_N$ | 4 A                       |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
|-----------------------------|------------|

### Signaling

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

### Connection data

#### Conductor connection

|                   |        |
|-------------------|--------|
| Tightening torque | 0.4 Nm |
|-------------------|--------|

### Connector

#### Connection 1

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627

<https://www.phoenixcontact.com/us/products/1415627>

|                     |                 |
|---------------------|-----------------|
| Type                | Plug angled M12 |
| Number of positions | 4               |
| Coding type         | A               |

## Connection 2

|                     |                     |
|---------------------|---------------------|
| Type                | Socket straight M12 |
| Number of positions | 4                   |
| Coding type         | A                   |

## Cable/line

|              |       |
|--------------|-------|
| Cable length | 0.3 m |
|--------------|-------|

## PVC black [PVC]

|                                               |                                                                                     |
|-----------------------------------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 40 kg/km                                                                            |
| UL AWM Style                                  | 2464 / 1729 (80°C/300 V)                                                            |
| Number of positions                           | 4                                                                                   |
| Shielded                                      | no                                                                                  |
| Cable type                                    | PVC black [PVC]                                                                     |
| Conductor structure signal line               | 19x 0.15 mm                                                                         |
| AWG signal line                               | 22                                                                                  |
| Conductor cross section                       | 4x 0.34 mm² (Signal line)                                                           |
| Wire diameter incl. insulation                | 1.26 mm ±0.05 mm                                                                    |
| External cable diameter                       | 4.70 mm ±0.15 mm                                                                    |
| Outer sheath, material                        | PVC                                                                                 |
| External sheath, color                        | black RAL 9005                                                                      |
| Conductor material                            | Bare Cu litz wires                                                                  |
| Material wire insulation                      | PVC                                                                                 |
| Single wire, color                            | brown, white, blue, black                                                           |
| Thickness, insulation                         | ≥ 0.23 mm (Core insulation)                                                         |
| Thickness, outer sheath                       | ≥ 0.76 mm                                                                           |
| Overall twist                                 | 4 wires, twisted                                                                    |
| Max. conductor resistance                     | ≤ 57 Ω/km (at 20 °C)                                                                |
| Insulation resistance                         | ≥ 200 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                                                                              |

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627

<https://www.phoenixcontact.com/us/products/1415627>

|                                               |                                                 |
|-----------------------------------------------|-------------------------------------------------|
| Smallest bending radius, fixed installation   | 24 mm                                           |
| Smallest bending radius, movable installation | 47 mm                                           |
| Flame resistance                              | As per UL-Style 2464                            |
| Resistance to oil                             | according to DIN EN 60811-2-1, 168 h at 60 °C   |
| Ambient temperature (operation)               | -25 °C ... 80 °C (cable, fixed installation)    |
|                                               | -10 °C ... 80 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Degree of protection            | IP65                             |
|                                 | IP67                             |
|                                 | IP68                             |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-101 |

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable

1415627

<https://www.phoenixcontact.com/us/products/1415627>

## Drawings

Dimensional drawing



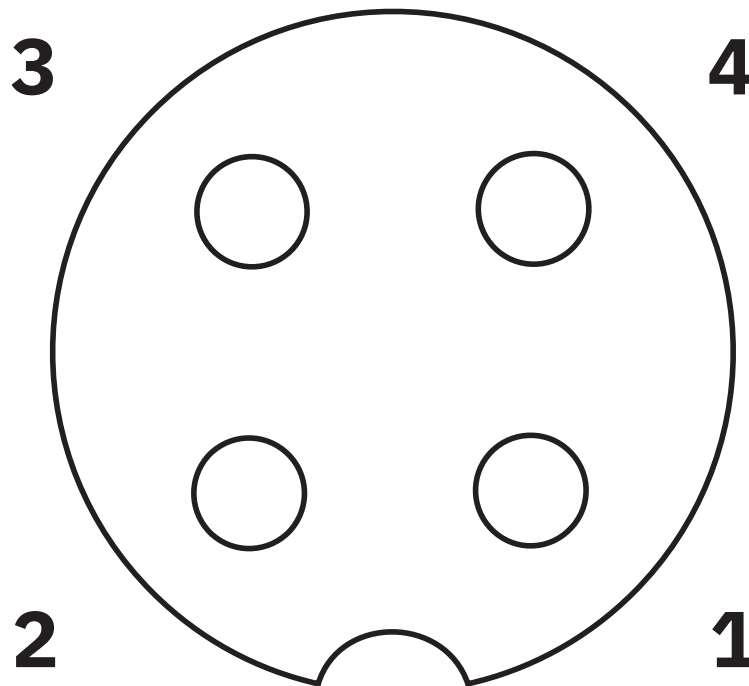
M12 x 1 male plug, angled

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable

1415627

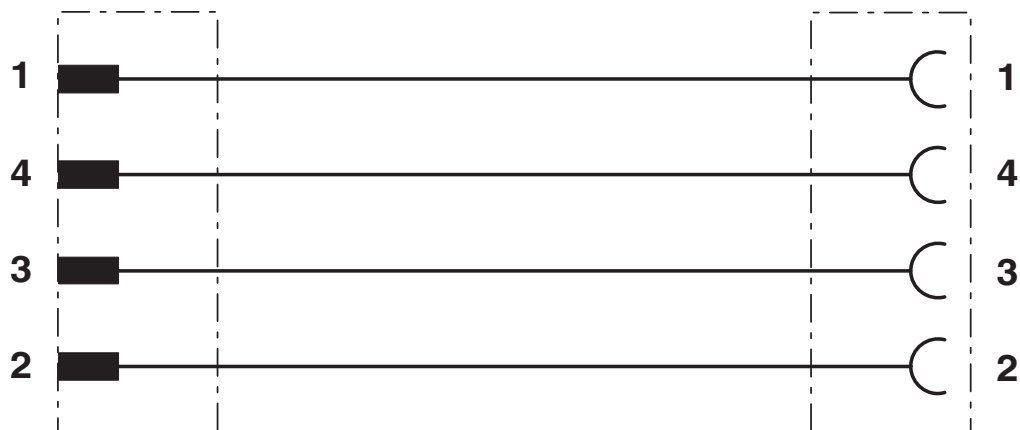
<https://www.phoenixcontact.com/us/products/1415627>

Schematic diagram



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

Circuit diagram

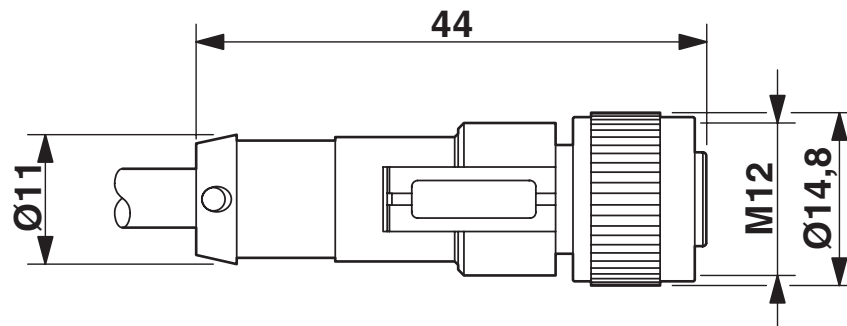


# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable

1415627

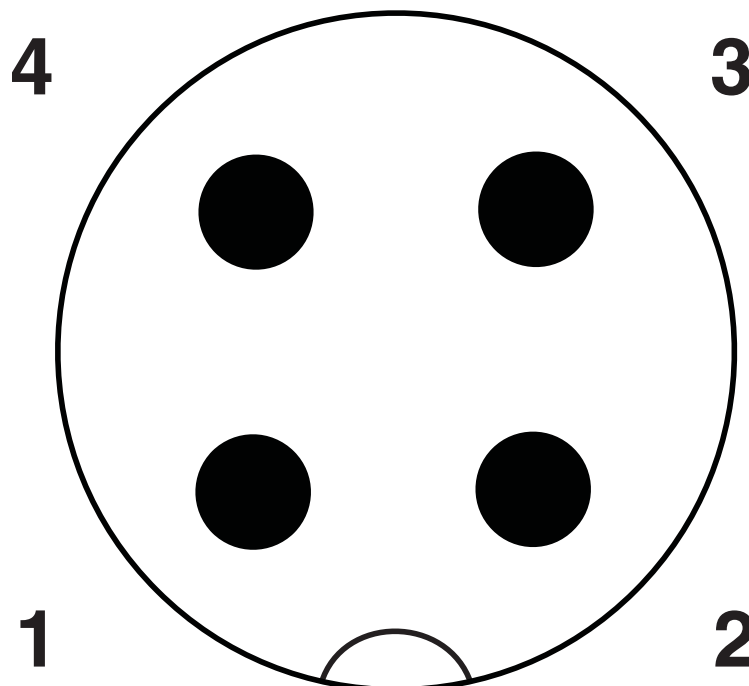
<https://www.phoenixcontact.com/us/products/1415627>

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



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

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627  
<https://www.phoenixcontact.com/us/products/1415627>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1415627>

|  |                                                |                                |                   |                               |
|--|------------------------------------------------|--------------------------------|-------------------|-------------------------------|
|  | <b>UL Listed</b><br>Approval ID: FILE E 221474 |                                |                   |                               |
|  | Nominal voltage U <sub>N</sub>                 | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|  | 125 V                                          | 4 A                            | -                 | -                             |

|  |                                                 |                                |                   |                               |
|--|-------------------------------------------------|--------------------------------|-------------------|-------------------------------|
|  | <b>cUL Listed</b><br>Approval ID: FILE E 221474 |                                |                   |                               |
|  | Nominal voltage U <sub>N</sub>                  | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|  | 125 V                                           | 4 A                            | -                 | -                             |

|  |                                                      |  |  |  |
|--|------------------------------------------------------|--|--|--|
|  | <b>EAC-RoHS</b><br>Approval ID: RU D-DE.HB35.B.00387 |  |  |  |
|  |                                                      |  |  |  |

|                     |  |  |  |  |
|---------------------|--|--|--|--|
| <b>cULus Listed</b> |  |  |  |  |
|---------------------|--|--|--|--|

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627  
<https://www.phoenixcontact.com/us/products/1415627>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

### ETIM

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

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

# SAC-4P-M12MR/0,3-PVC/M12FS - Sensor/actuator cable



1415627  
<https://www.phoenixcontact.com/us/products/1415627>

## 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%               |
| EF3.0 Climate Change                    |                                          |
| CO2e kg                                 | 0.263 kg CO2e                            |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)