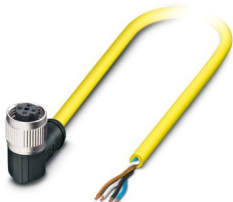


1424909

<https://www.phoenixcontact.com/us/products/1424909>

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Sensor/actuator cable, 4-position, PVC, yellow, free cable end, on Socket angled M12, coding: A, cable length: 2 m

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1424909       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF13          |
| Product key                          | BF1IFB        |
| GTIN                                 | 4055626401812 |
| Weight per piece (including packing) | 22.22 g       |
| Weight per piece (excluding packing) | 22.22 g       |
| Customs tariff number                | 85444290      |
| Country of origin                    | US            |

# SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



1424909

<https://www.phoenixcontact.com/us/products/1424909>

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard, U.S. cables |
| 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                |
| Outer sheath, material                 | PVC                                         |

### 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                       |

### Signaling

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

### Connection data

#### Conductor connection

|                   |                        |
|-------------------|------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
|-------------------|------------------------|

### Connector

#### Connection 1

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

#### Connection 2

|      |                   |
|------|-------------------|
| Type | Socket angled M12 |
|------|-------------------|

# SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



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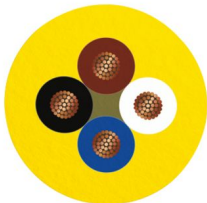
<https://www.phoenixcontact.com/us/products/1424909>

|                     |   |
|---------------------|---|
| Number of positions | 4 |
| Coding type         | A |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|

PVC AWG 18 yellow 105°C [547]

|                                             |                                                                                           |
|---------------------------------------------|-------------------------------------------------------------------------------------------|
| Dimensional drawing                         |         |
| UL AWM Style                                | 2517 (105 °C / 300 V)                                                                     |
| Number of positions                         | 4                                                                                         |
| Shielded                                    | no                                                                                        |
| Cable type                                  | PVC AWG 18 yellow 105°C [547]                                                             |
| Conductor structure signal line             | 41x 0.16 mm                                                                               |
| AWG signal line                             | 18                                                                                        |
| Wire diameter incl. insulation              | 1.7 mm ±0.03 mm                                                                           |
| External cable diameter                     | 6.00 mm ±0.2 mm                                                                           |
| Outer sheath, material                      | PVC                                                                                       |
| External sheath, color                      | yellow                                                                                    |
| Conductor material                          | Tin-plated Cu litz wires                                                                  |
| Material wire insulation                    | PVC                                                                                       |
| Single wire, color                          | brown, white, blue, black                                                                 |
| Overall twist                               | 4 wires, twisted                                                                          |
| Nominal voltage, cable                      | 300 V                                                                                     |
| Minimum bending radius, fixed installation  | 8 x D                                                                                     |
| Smallest bending radius, fixed installation | 48 mm                                                                                     |
| Flame resistance                            | FT4                                                                                       |
| Special properties                          | C(UL) CMX OUTDOOR-CMG 105 °C<br>UL ITC/PLTC 105 °C<br>CSA AWM I/II A/B FT4 105 °C / 300 V |
| Ambient temperature (operation)             | -30 °C ... 105 °C (cable, fixed installation)                                             |

## Environmental and real-life conditions

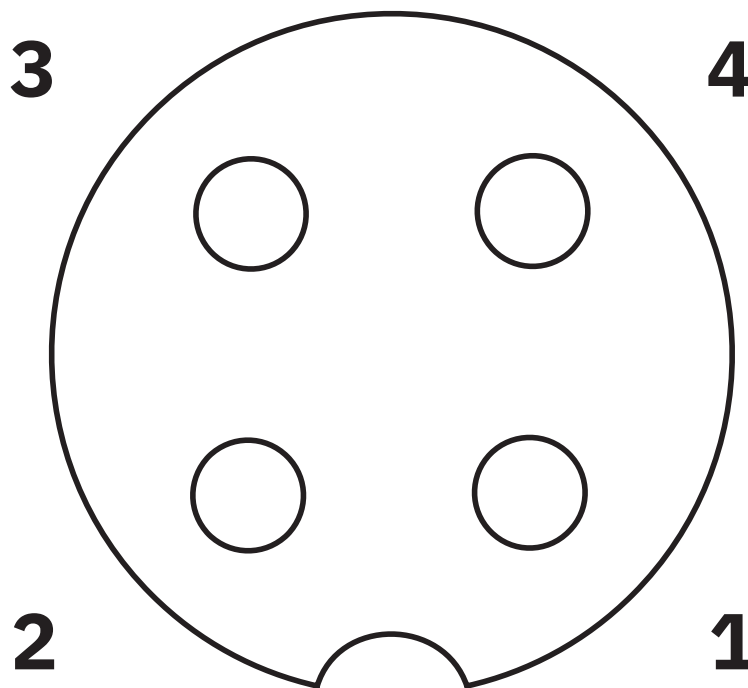
|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient conditions              |                                  |
| Degree of protection            | IP65                             |
|               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

Standards and regulations

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

## Drawings

Schematic diagram



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

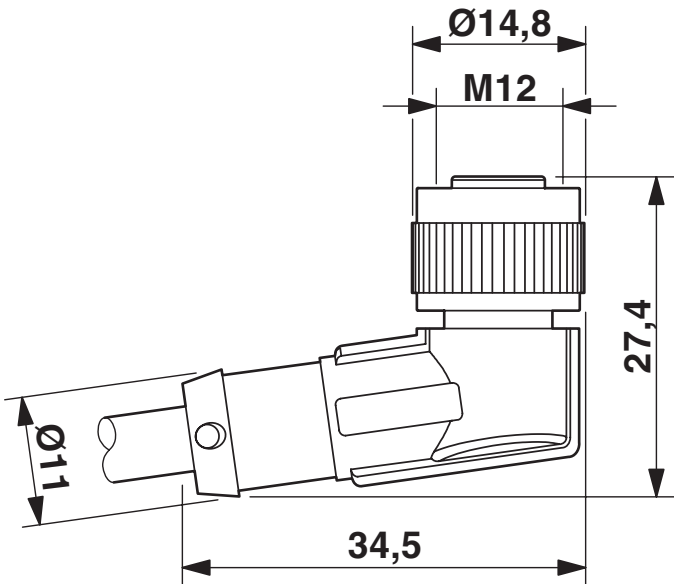
SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



1424909

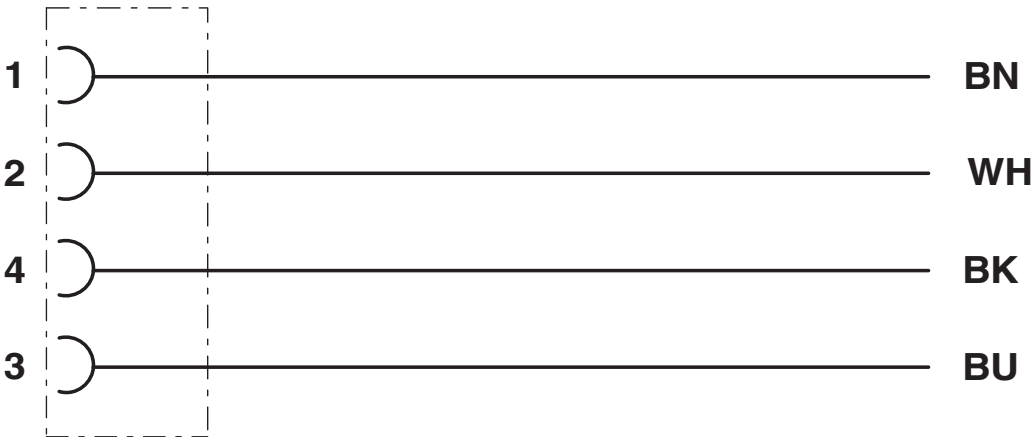
<https://www.phoenixcontact.com/us/products/1424909>

Dimensional drawing



M12 x 1 socket, angled

Circuit diagram



Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1424909>

|                                                                                   |                                                |                                |                   |                               |
|-----------------------------------------------------------------------------------|------------------------------------------------|--------------------------------|-------------------|-------------------------------|
|  | <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> |
|                                                                                   | 300 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> |
|                                                                                   | 300 V                                           | 4 A                            | -                 | -                             |

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

# SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



1424909

<https://www.phoenixcontact.com/us/products/1424909>

## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC001855 |
|----------|----------|

### UNSPSC

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

Environmental product compliance

|                                         |                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS                                 |                                                                                                                                                                                                                                   |
| Fulfills EU RoHS substance requirements | Yes, No exemptions                                                                                                                                                                                                                |
| China RoHS                              |                                                                                                                                                                                                                                   |
| Environment friendly use period (EFUP)  | EFUP-50                                                                                                                                                                                                                           |
|                                         | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |
| EU REACH SVHC                           |                                                                                                                                                                                                                                   |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%                                                                                                                                                                                                        |

# SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



1424909

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## Accessories

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

1430873

<https://www.phoenixcontact.com/us/products/1430873>

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



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### SAC-M12-EXCLIP-M - Locking clip

1558988

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



## SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable

1424909

<https://www.phoenixcontact.com/us/products/1424909>



## PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



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## SAC-M12-EXCLIP-F - Locking clip

1558991

<https://www.phoenixcontact.com/us/products/1558991>

Locking clip for the socket 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



# SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



1424909

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## TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/us/products/1208429>



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

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

1212224

<https://www.phoenixcontact.com/us/products/1212224>



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

# SAC-4P- 2,0-547/M12FR BK - Sensor/actuator cable



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

1212600

<https://www.phoenixcontact.com/us/products/1212600>



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

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## SAC BIT M12-D15 - Tool

1208432

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

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