

# SAC-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

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, 3-position, PVC, yellow, free cable end, on Socket angled M12, coding: A, cable length: 2 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1424954                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF13                           |
| Product key                          | BF1IFA                         |
| GTIN                                 | 4055626402017                  |
| Weight per piece (including packing) | 122.6 g                        |
| Weight per piece (excluding packing) | 122.6 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | US                             |

# SAC-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard, U.S. cables |
| Number of positions  | 3                     |
| 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-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

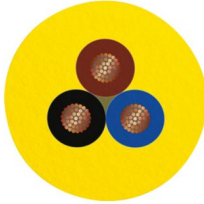
<https://www.phoenixcontact.com/us/products/1424954>

|                     |   |
|---------------------|---|
| Number of positions | 3 |
| 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                         | 3                                                                                         |
| 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                     | 5.70 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, blue, black                                                                        |
| Overall twist                               | 3 wires, twisted                                                                          |
| Nominal voltage, cable                      | 300 V                                                                                     |
| Minimum bending radius, fixed installation  | 8 x D                                                                                     |
| Smallest bending radius, fixed installation | 46 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<br>IP67<br>IP68             |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |

# SAC-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## Standards and regulations

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

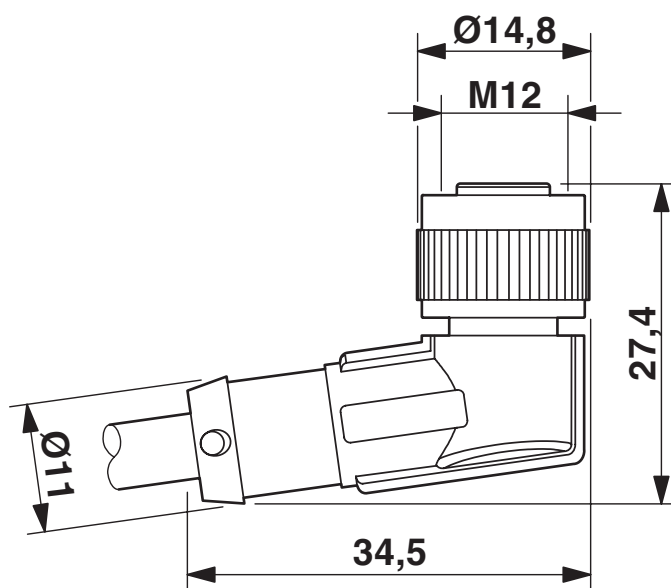
## Drawings

Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

Dimensional drawing



M12 x 1 socket, angled

Circuit diagram



# SAC-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1424954>

|  |                                                |                                |                   |                               |
|--|------------------------------------------------|--------------------------------|-------------------|-------------------------------|
|  | <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-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## 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-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## 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



---

### 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-3P- 2,0-547/FR SCO BK - Sensor/actuator cable

1424954

<https://www.phoenixcontact.com/us/products/1424954>



## 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



---

## 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-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## 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

---

## 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-3P- 2,0-547/FR SCO BK - Sensor/actuator cable



1424954

<https://www.phoenixcontact.com/us/products/1424954>

## 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

---

## 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

---

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)