

# SAC-3P-M12MS/ 5,0-547 BK - Sensor/actuator cable



1424915

<https://www.phoenixcontact.com/us/products/1424915>

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Sensor/actuator cable, 3-position, PVC, yellow, Plug straight M12, coding: A, on free cable end, cable length: 5 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1424915                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF13                           |
| Product key                          | AF1IFA                         |
| GTIN                                 | 4055626401874                  |
| Weight per piece (including packing) | 279 g                          |
| Weight per piece (excluding packing) | 279 g                          |
| Customs tariff number                | 85444290                       |
| Country of origin                    | US                             |

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## 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        | Plug straight M12 |
| Coding type | A                 |

#### Connection 2

# SAC-3P-M12MS/ 5,0-547 BK - Sensor/actuator cable



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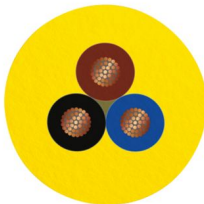
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|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 5 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                          | 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) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket) |

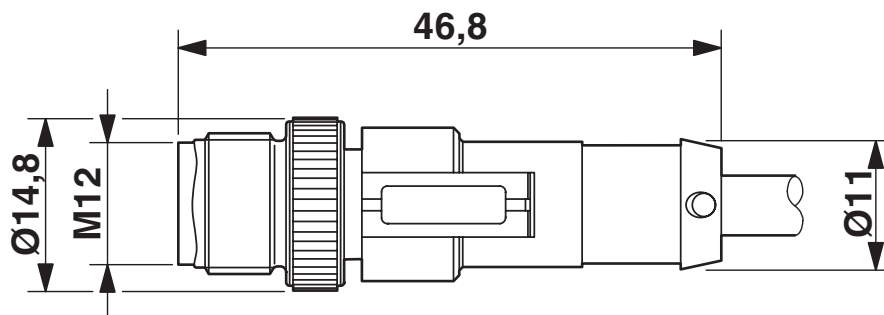
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Standards and regulations

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

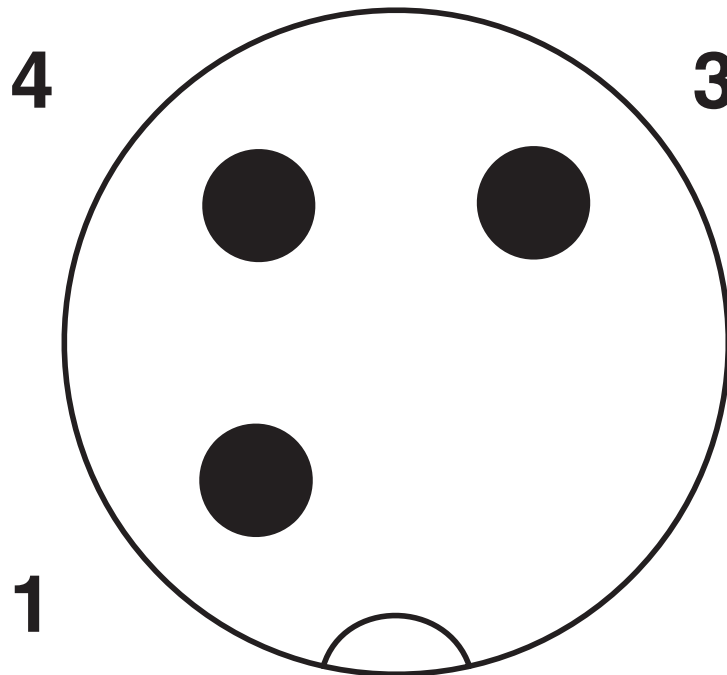
## Drawings

Dimensional drawing



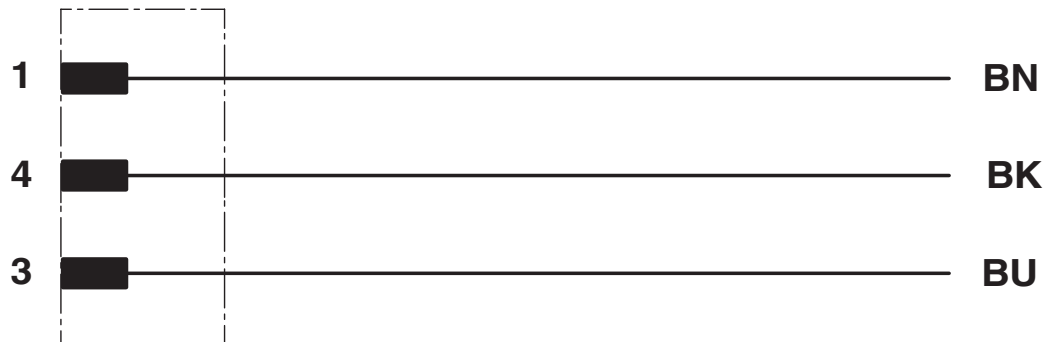
Plug, M12 x 1, straight, shielded

Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side

Circuit diagram



Contact assignment of the M12 plug

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## Approvals

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### UL Listed

Approval ID: FILE E 221474

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 300 V                 | 4 A                   | -                 | -                           |



### cUL Listed

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|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 300 V                 | 4 A                   | -                 | -                           |



### EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | 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% |
|-------------------------------------|----------------------------|