

# Sensor/actuator cable - SAC-3P-Y/2X 5,0-PUR SCO



1524226

<https://www.phoenixcontact.com/pc/products/1524226>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on free cable end and free cable end, cable length: 5 m

## Commercial Data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1524226             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product Key                          | BF1COA              |
| Catalog Page                         | Page 256 (C-2-2017) |
| GTIN                                 | 4017918969073       |
| Weight per Piece (including packing) | 222.5 g             |
| Weight per Piece (excluding packing) | 222.5 g             |
| Customs tariff number                | 85444290            |
| Country of origin                    | PL                  |

# Sensor/actuator cable - SAC-3P-Y/2X 5,0-PUR SCO



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## Technical Data

### Product properties

|                      |                        |
|----------------------|------------------------|
| Product type         | Distributor with cable |
| Number of positions  | 3                      |
| Application          | Standard               |
| No. of cable outlets | 2                      |
| Shielded             | no                     |
| Coding               | A - standard           |

### Insulation characteristics

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

### Connection data

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

### Material specifications

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | HB                                          |
| 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

|                       |                          |
|-----------------------|--------------------------|
| Contact resistance    | $\leq 5 \text{ m}\Omega$ |
| Insulation resistance | 100 M $\Omega$           |
| Nominal voltage $U_N$ | 250 V AC                 |
|                       | 250 V DC                 |
| Nominal current $I_N$ | 4 A                      |

### LED signaling

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

### Connector

#### Connection 1

|                   |          |
|-------------------|----------|
| Head design       | Plug     |
| Head cable outlet | straight |
| Head thread type  | M12      |
| Head locking type | SPEEDCON |
| Coding            | A        |

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## Connection 2

|             |                |
|-------------|----------------|
| Head design | free cable end |
|-------------|----------------|

## Cable / line

|              |     |
|--------------|-----|
| Cable length | 5 m |
|--------------|-----|

## PUR halogen-free black [PUR]

|                                               |                                                                                    |
|-----------------------------------------------|------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 23 kg/km                                                                           |
| UL AWM Style                                  | 20549                                                                              |
| Number of positions                           | 3                                                                                  |
| Shielded                                      | no                                                                                 |
| Cable type                                    | PUR halogen-free black [PUR]                                                       |
| Conductor structure signal line               | 42x 0.10 mm                                                                        |
| AWG signal line                               | 22                                                                                 |
| Conductor cross section                       | 3x 0.34 mm <sup>2</sup> (Signal line)                                              |
| Wire diameter incl. insulation                | 1.27 mm ±0.02 mm (Signal line)                                                     |
| External cable diameter                       | 3.85 mm ±0.15 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, blue, black                                                                 |
| Thickness, insulation                         | ≥ 0.21 mm (Core insulation)<br>approx. 0.5 mm (Outer cable sheath)                 |
| Overall twist                                 | 3 wires, twisted                                                                   |
| Max. conductor resistance                     | max. 58 Ω/km (at 20 °C)                                                            |
| Insulation resistance                         | ≥ 100 GΩ*km (at 20 °C)                                                             |
| Nominal voltage, cable                        | ≤ 300 V                                                                            |
| Test voltage                                  | ≥ 3000 V                                                                           |
| Smallest bending radius, fixed installation   | 19 mm                                                                              |
| Smallest bending radius, movable installation | 38 mm                                                                              |
| Max. bending cycles                           | 10000000                                                                           |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                                           |
| Flame resistance                              | in accordance with UL 758/1581 FT2<br>DIN EN 60332-2-2 (20 s)                      |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                                |

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|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents          |
|                                 | hydrolysis and microbe resistant                                    |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
| Special properties              | Flexible cable conduit capable                                      |
|                                 | Silicone-free                                                       |
|                                 | Free of substances which would hinder coating with paint or varnish |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                        |
|                                 | -25 °C ... 80 °C (Cable, flexible installation)                     |

## Environmental and real-life conditions

### Ambient conditions

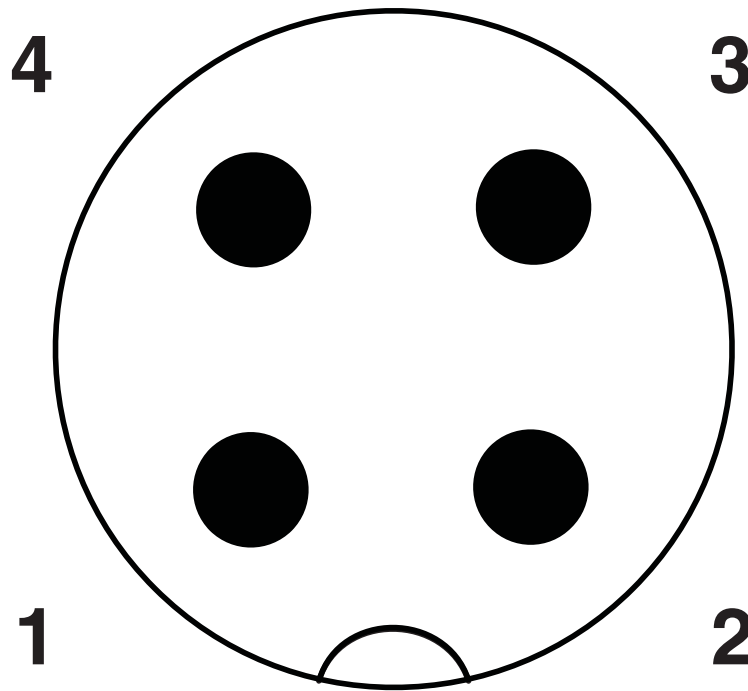
|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Degree of protection            | IP65                                           |
|                                 | IP67                                           |
|                                 | IP68                                           |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket)               |
|                                 | -40 °C ... 80 °C (cable, fixed installation)   |
|                                 | -5 °C ... 80 °C (Cable, flexible installation) |

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standards/specifications | IEC 61076-2-101 |
|--------------------------|-----------------|

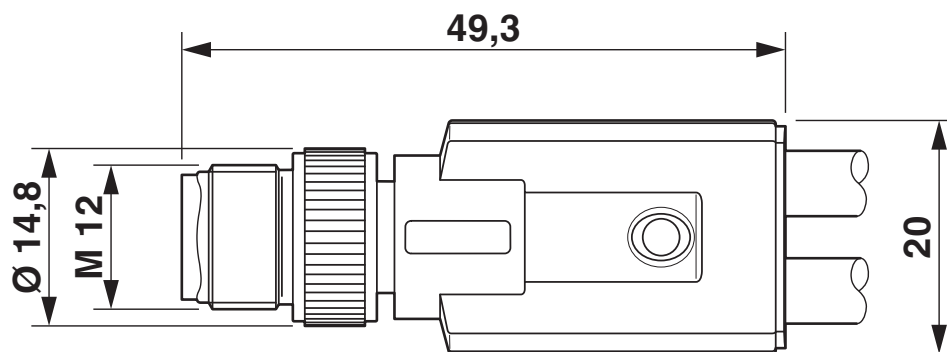
## Drawings

Schematic diagram



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

Dimensional drawing



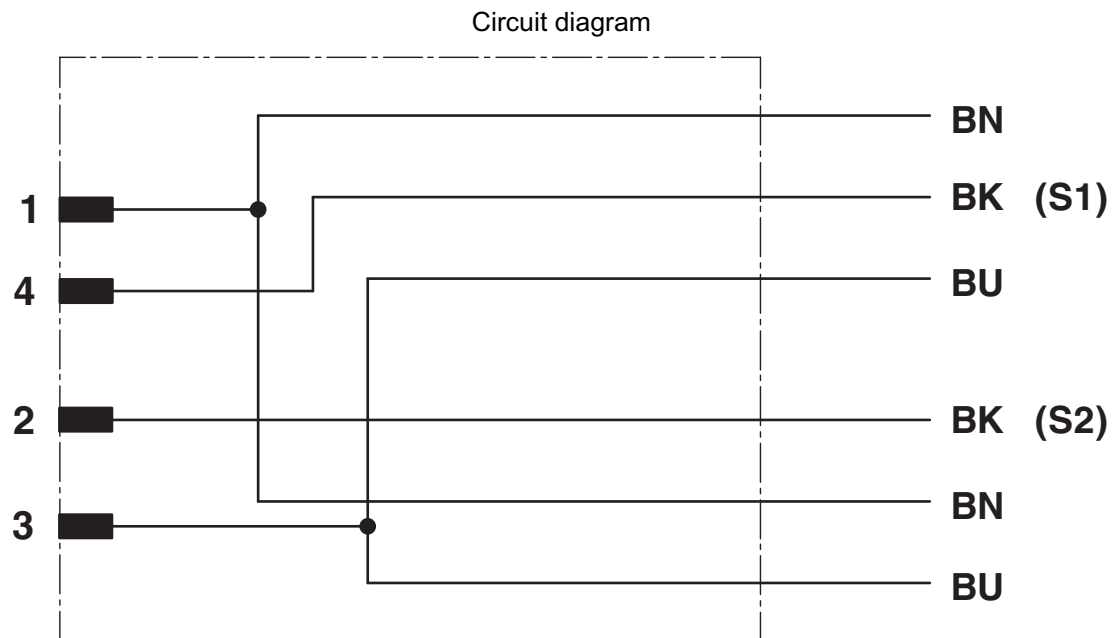
Plug M12 x 1, Y distributor

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## Approvals



### 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

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                   | -                 | -                           |



### EAC

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

### cULus Listed

# Sensor/actuator cable - SAC-3P-Y/2X 5,0-PUR SCO



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## Classifications

### ECLASS

|               |          |
|---------------|----------|
| ECLASS-9.0    | 27060311 |
| ECLASS-10.0.1 | 27060311 |
| ECLASS-11.0   | 27060313 |

### ETIM

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

### UNSPSC

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



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## Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

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## Accessories

### Sealing cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

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

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



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### Locking clip

Locking clip - SAC-M12-EXCLIP-M - 1558988

<https://www.phoenixcontact.com/pc/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



# Sensor/actuator cable - SAC-3P-Y/2X 5,0-PUR SCO



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## Insert label

Insert label - PABA WH/23 - 1013779

<https://www.phoenixcontact.com/pc/products/1013779>



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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## Insert label

Insert label - PABA YE/23 - 1013782

<https://www.phoenixcontact.com/pc/products/1013782>



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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## Marker pen

Marker pen - B-STIFT - 1051993

<https://www.phoenixcontact.com/pc/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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## Diagonal cutter

Diagonal cutter - CUTFOX-S VDE - 1212207

<https://www.phoenixcontact.com/pc/products/1212207>



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

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## Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757

<https://www.phoenixcontact.com/pc/products/1212757>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

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## Stripping tool

Stripping tool - WIREFOX SAC - 1212623

<https://www.phoenixcontact.com/pc/products/1212623>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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## Stripping tool

Stripping tool - WIREFOX 10 - 1212150

<https://www.phoenixcontact.com/pc/products/1212150>



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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## Protective hose adapter

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884

<https://www.phoenixcontact.com/pc/products/1422884>



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

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<https://www.phoenixcontact.com/pc/products/1524226>

## Protective hose

Protective hose - WP-PA HF 13,0 BK - 3240681

<https://www.phoenixcontact.com/pc/products/3240681>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

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## Protective hose

Protective hose - WP-PA HF-HB 13,0 BK - 3240839

<https://www.phoenixcontact.com/pc/products/3240839>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

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## Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

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



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

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## Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224

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



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



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## Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

<https://www.phoenixcontact.com/pc/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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## Tool

Tool - SAC BIT M12-D15 - 1208432

<https://www.phoenixcontact.com/pc/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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