

# SAC-5P- 3,0-PUR/AD-2L - Sensor/actuator cable



1435098

<https://www.phoenixcontact.com/us/products/1435098>

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector AD (pressure switch), with 2 LEDs, Wiring: unwired, cable length: 3 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Our standard: robust halogen-free PUR cable

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1435098             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF07                |
| Product key                          | BF1DBA              |
| Catalog page                         | Page 240 (C-2-2019) |
| GTIN                                 | 4046356413459       |
| Weight per piece (including packing) | 162.5 g             |
| Weight per piece (excluding packing) | 152.2 g             |
| Customs tariff number                | 85444290            |
| Country of origin                    | PL                  |

# SAC-5P- 3,0-PUR/AD-2L - Sensor/actuator cable



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## Technical data

### Product properties

|                      |                                            |
|----------------------|--------------------------------------------|
| Product type         | Sensor/actuator cable with valve connector |
| Application          | Standard                                   |
| Number of positions  | 5                                          |
| No. of cable outlets | 1                                          |
| Shielded             | no                                         |
| Coding               | A                                          |

### Insulation characteristics

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

### Material specifications

|                                        |      |
|----------------------------------------|------|
| Flammability rating according to UL 94 | V0   |
| Seal material                          | TPU  |
| Material housing valve plug            | TPU  |
| Contact material                       | CuSn |
| Contact surface material               | Ag   |
| Contact carrier material               | PBT  |
| Contact material                       | CuSn |
| Valve plug contact insert material     | PA 6 |
| Contact surface material               | Sn   |

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 24 V DC                    |
| Nominal current $I_N$ | 4 A                        |

### Valve connector characteristics

|               |         |
|---------------|---------|
| Fixing screws | M3 x 29 |
|---------------|---------|

### Signaling

|                        |        |
|------------------------|--------|
| Status display         | 2 LEDs |
| Status display present | Yes    |

### Connector

#### Connection 1

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

#### Connection 2

|          |                                      |
|----------|--------------------------------------|
| Type     | Valve connector AD (pressure switch) |
| Material | CuSn (Contact)                       |
|          | Sn (Contact surface)                 |

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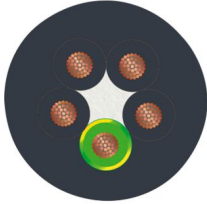
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|  |                         |
|--|-------------------------|
|  | PA 6 (Contact carriers) |
|  | TPU (Housing)           |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

PUR halogen-free black [PUR]

|                                               |                                                                                    |
|-----------------------------------------------|------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 44.8 kg/km                                                                         |
| UL AWM Style                                  | 20549                                                                              |
| Number of positions                           | 5                                                                                  |
| Shielded                                      | no                                                                                 |
| Cable type                                    | PUR halogen-free black [PUR]                                                       |
| Conductor structure signal line               | 28x 0.15 mm                                                                        |
| AWG signal line                               | 20                                                                                 |
| Conductor cross section                       | 5x 0.5 mm²                                                                         |
| Wire diameter incl. insulation                | 1.5 mm ±0.05 mm (Signal line)                                                      |
| External cable diameter                       | 5.30 mm ±0.02 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                            | black 1, black 2, black 3, black 4, green/yellow                                   |
| Overall twist                                 | 5 cores, twisted                                                                   |
| Max. conductor resistance                     | 39 Ω/km (at 20 °C)                                                                 |
| Insulation resistance                         | min. 20 MΩ*km                                                                      |
| Nominal voltage, cable                        | ≤ 300 V                                                                            |
| Test voltage                                  | ≥ 1200 V                                                                           |
| Minimum bending radius, fixed installation    | 5 x D                                                                              |
| Minimum bending radius, flexible installation | 10 x D                                                                             |
| Smallest bending radius, fixed installation   | 26.5 mm                                                                            |
| Smallest bending radius, movable installation | 53 mm                                                                              |
| Max. bending cycles                           | 15000000                                                                           |
| Bending radius                                | 50 mm                                                                              |
| Traversing path                               | 0.9 m                                                                              |
| Traversing rate                               | 5 m/s                                                                              |
| Acceleration                                  | 30 m/s²                                                                            |

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|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                            |
| Flame resistance                | in accordance with DIN UL-Style 20549                               |
| Resistance to oil               | in accordance with DIN EN 60811-2-1                                 |
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents          |
|                                 | hydrolysis and microbe resistant                                    |
|                                 | largely oil-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)                        |
|                                 | -20 °C ... 80 °C (Cable, flexible installation)                     |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Degree of protection            | IP65                                            |
|                                 | IP67                                            |
| Ambient temperature (operation) | -20 °C ... 85 °C (valve plug)                   |
|                                 | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -15 °C ... 80 °C (Cable, flexible installation) |

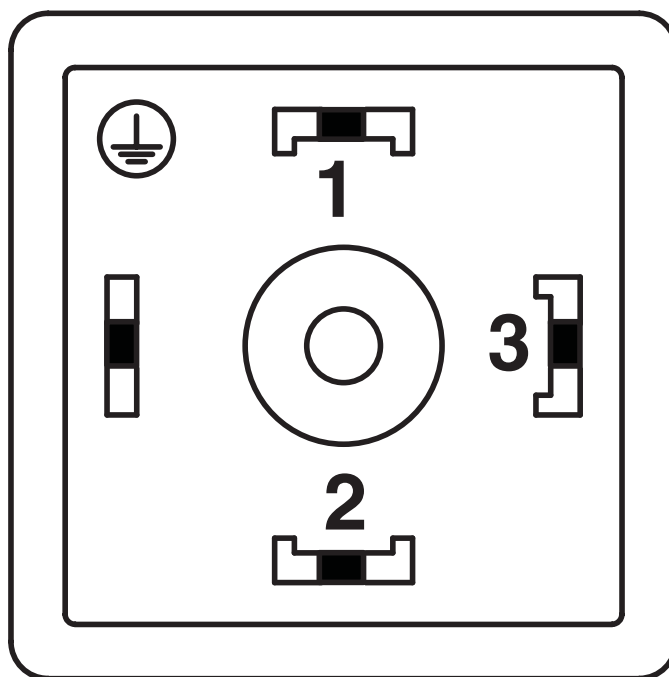
## Standards and regulations

### Valve connector

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | Valve connector |
| Standards/specifications | EN 175301-803   |

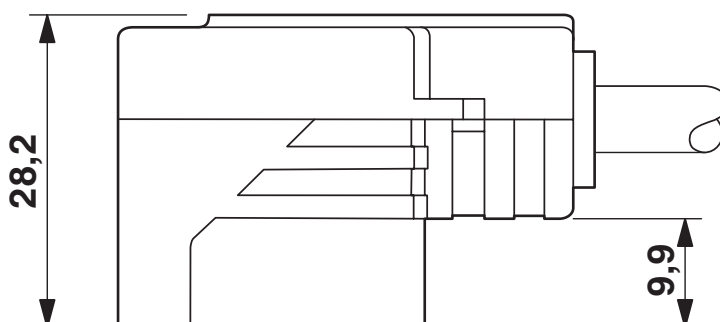
## Drawings

Schematic diagram



Valve plug connector pin assignment, type AD

Dimensional drawing

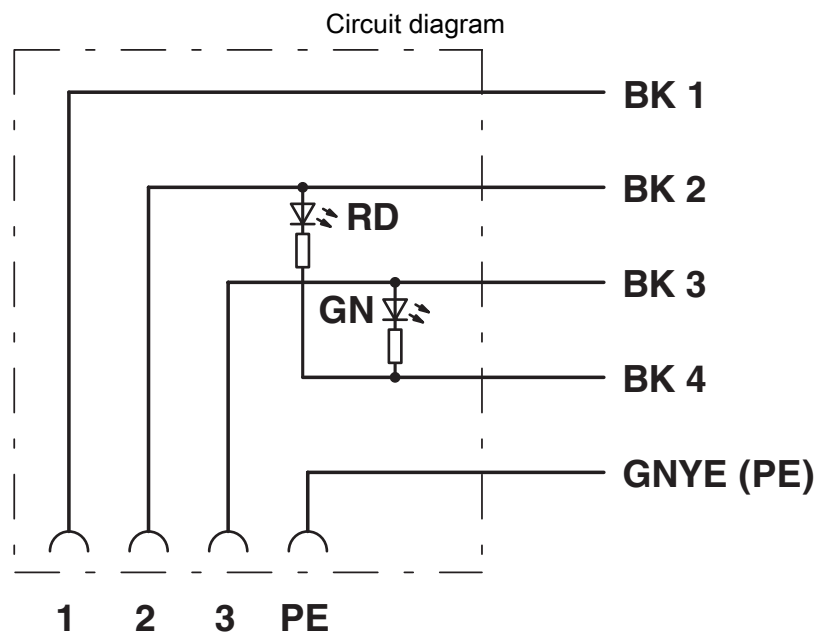


Valve connector, type AD, side view

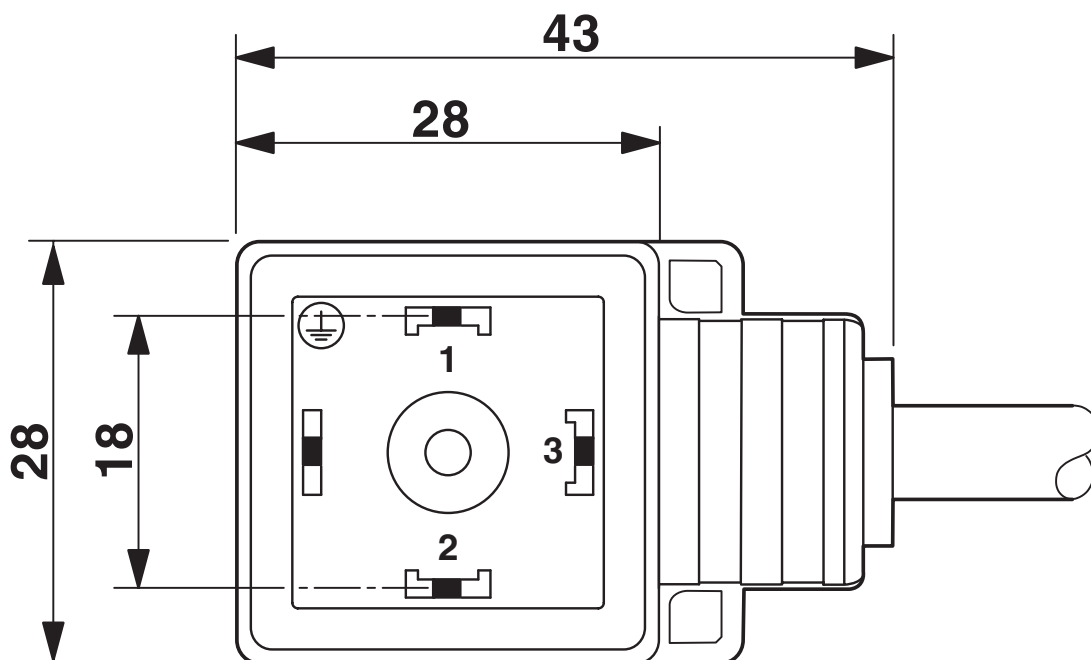
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Dimensional drawing



Valve connector, type AD

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1435098>



**EAC-RoHS**  
Approval ID: RU D-DE.HB35.B.00387

|                                                                                   |                                    |                       |                   |                             |
|-----------------------------------------------------------------------------------|------------------------------------|-----------------------|-------------------|-----------------------------|
|  | <b>CSAus</b><br>Approval ID: 13631 |                       |                   |                             |
|                                                                                   | Nominal voltage $U_N$              | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                   | 24 V                               | 6 A                   | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060312 |
| ECLASS-12.0 | 27060312 |
| ECLASS-13.0 | 27060312 |

### ETIM

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

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 31251500 |
|-------------|----------|



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## 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%               |

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## Accessories

### SAC-V-SCREW-M3-29 KNURL - Screw

1403779

<https://www.phoenixcontact.com/us/products/1403779>

Fillister head screw with plastic knurl, M3 x 40



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### UCT-WMT (23X4) - Conductor marker

0801453

<https://www.phoenixcontact.com/us/products/0801453>

Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 30



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## UC-WMT (23X4) - Conductor marker

0819411

<https://www.phoenixcontact.com/us/products/0819411>



Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 24

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## US-WMT (23X4) - Cable marker

0828769

<https://www.phoenixcontact.com/us/products/0828769>



Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 56

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## WMTW (23X4)R - Cable marker

0831004

<https://www.phoenixcontact.com/us/products/0831004>



Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 3000

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

1422884

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



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

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

3240681

<https://www.phoenixcontact.com/us/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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### WP-PA HF-HB 13,0 BK - Protective hose

3240839

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

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## SF-BIT-PH 1-70 - Screw insert

1212582

<https://www.phoenixcontact.com/us/products/1212582>



Screw bit, PH crosshead, E6.3-1/4" drive, size: PH 1 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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## B-STIFT - Marker pen

1051993

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



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

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## CUTFOX-S VDE - Diagonal cutter

1212207

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



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

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## WIREFOX SAC-1 - Stripping tool

1212757

<https://www.phoenixcontact.com/us/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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## WIREFOX SAC - Stripping tool

1212623

<https://www.phoenixcontact.com/us/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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## WIREFOX 10 - Stripping tool

1212150

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