

# SAC-3P- 5,0-PUR/CI-1L-R-ES - Sensor/actuator cable



1401544

<https://www.phoenixcontact.com/us/products/1401544>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector CI (9.4 mm), with 1 LED, Wiring: Freewheeling diode with holding current limiting device, cable length: 5 m, with holding current limiting device for energy reduction

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1401544             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product key                          | BF1DFA              |
| Catalog page                         | Page 234 (C-2-2019) |
| GTIN                                 | 4046356924696       |
| Weight per piece (including packing) | 157.4 g             |
| Weight per piece (excluding packing) | 157.4 g             |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|                      |                                            |
|----------------------|--------------------------------------------|
| Product type         | Sensor/actuator cable with valve connector |
| Number of positions  | 3                                          |
| Application          | Standard                                   |
| No. of cable outlets | 1                                          |
| Shielded             | no                                         |

### Material specifications

|                                    |        |
|------------------------------------|--------|
| Seal material                      | TPU    |
| Material housing valve plug        | TPU    |
| Contact material                   | CuSn   |
| Valve plug contact insert material | PA 6.6 |
| Contact surface material           | Ag     |

### Electrical properties

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$                              |
| Nominal voltage $U_N$ | 24 V DC $\pm 20 \%$                                     |
| Nominal current $I_N$ | 1 A                                                     |
| Protective circuit    | Freewheeling diode with holding current limiting device |

### Valve connector characteristics

|                     |                                                   |
|---------------------|---------------------------------------------------|
| Switch-over time    | approx. 200 ms (Initial operating time)           |
| Clock frequency     | approx. 2500 Hz (Holding current limiting device) |
| Switching frequency | max. 5 Hz (Connected valve)                       |
| Fixing screws       | M3 x 25                                           |

### Signaling

|                        |       |
|------------------------|-------|
| Status display         | 1 LED |
| Status display present | Yes   |

### Connector

#### Connection 1

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

#### Connection 2

|                     |                             |
|---------------------|-----------------------------|
| Type                | Valve connector CI (9.4 mm) |
| Number of positions | 3                           |
| Material            | CuSn (Contact)              |
|                     | Ag (Contact surface)        |
|                     | PBT (Contact carriers)      |
|                     | TPU (Housing)               |

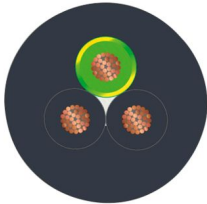
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## Cable/line

|                                               |                                                                                       |
|-----------------------------------------------|---------------------------------------------------------------------------------------|
| Cable length                                  | 5 m                                                                                   |
| PUR halogen-free black [PUR]                  |                                                                                       |
| Dimensional drawing                           |     |
| Cable weight                                  | 30 kg/km                                                                              |
| UL AWM Style                                  | 20549                                                                                 |
| Number of positions                           | 3                                                                                     |
| Shielded                                      | no                                                                                    |
| Cable type                                    | PUR halogen-free black [PUR]                                                          |
| Conductor structure signal line               | 28x 0.15 mm                                                                           |
| AWG signal line                               | 20                                                                                    |
| Conductor cross section                       | 3x 0.5 mm <sup>2</sup>                                                                |
| Wire diameter incl. insulation                | 1.5 mm ±0.05 mm (Signal line)                                                         |
| External cable diameter                       | 4.50 mm ±0.2 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, green/yellow                                                        |
| Overall twist                                 | 3 wires, 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   | 22.5 mm                                                                               |
| Smallest bending radius, movable installation | 45 mm                                                                                 |
| Max. bending cycles                           | 15000000                                                                              |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                                              |
| Flame resistance                              | according to DIN VDE 0482<br>According to DIN EN 50265-2-1                            |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                                   |
| Other resistance                              | largely oil-resistant<br>partly UV-resistant (in accordance with DIN EN ISO 4892-2-A) |

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|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| 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            | IP67                          |
| Ambient temperature (operation) | -25 °C ... 80 °C (valve plug) |

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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

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

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