

# Sensor/Actuator cable - SAC-3P-M12MS/1,5-PUR/C-1L-Z - 1400786

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Sensor/Actuator cable, 3-position, PUR, Black RAL 9005, Plug straight M12, A-coded, on C valve plug (8 mm), with 1 LED, connected with Z diode, Cable length: 1.5 m

As illustrated, but without SPEEDCON

## Key commercial data

|                        |   |
|------------------------|---|
| Packing unit           | 0   |
| Minimum order quantity | 1   |
| GTIN                   | <br>4 046356 511599 |
| Custom tariff number   | 85444290  |
| Country of origin      | POLAND  |

## Technical data

### General data

|                                 |  |
|---------------------------------|--|
| Rated current at 40°C           | 4 A  |
| Rated voltage                   | 24 V   |
| Number of positions             | 3  |
| Volume resistance               | ≤ 5 mΩ   |
| Insulation resistance           | ≥ 100 MΩ   |
| Length of cable                 | 1.5 m  |
| Ambient temperature (operation) | -25 °C ... 90 °C (Male connector / female connector) |
| Ambient temperature (operation) | -20 °C ... 85 °C (valve plug)                        |

### General characteristics

|                             |                               |
|-----------------------------|-------------------------------|
| Standards/regulations       | M12 connector IEC 61076-2-101 |
| Standards/regulations       | Valve connector EN 175301-803 |
| Coding                      | A - standard                  |
| Surge voltage category      | III                           |
| Pollution degree            | 3                             |
| Degree of protection        | IP65/67                       |
| Insertion/withdrawal cycles | ≥ 100                         |
| Contact material            | CuSn                          |

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### General characteristics

|                                    |                              |
|------------------------------------|------------------------------|
| Contact surface material           | Ni/Au                        |
| Contact carrier material           | TPU GF                       |
| Material of grip body              | TPU                          |
| Contact material                   | CuSn                         |
| Contact surface material           | Sn                           |
| Valve plug contact insert material | PA 66                        |
| Material housing valve plug        | TPU                          |
| Material, knurls                   | Zinc die-cast, nickel-plated |
| Sealing material                   | TPU (Seal molded)            |
| Status display                     | 1 LED                        |
| Protective circuit/component       | Z diode                      |

### Conductor data

|   |   |
|---|---|
| Cable type                                  | PUR halogen-free black                          |
| Cable type (abbreviation)                   | PUR   |
| Cable abbreviation                          | Li9Y11Y-HF                                      |
| UL AWM Style                                | 20549   |
| Conductor cross section                     | 3x 0.5 mm <sup>2</sup>                          |
| AWG signal line                             | 20  |
| Conductor structure signal line             | 28x 0.15 mm                                     |
| Core diameter including insulation          | 1.5 mm ±0.05 mm (signal line)                   |
| External cable diameter                     | 4.5 mm ± 0.2 mm                                 |
| Wire colors                                 | Black 1, black 2, green/yellow                  |
| External sheath, color                      | Black-gray RAL 7021                             |
| Insulation resistance                       | min. 20 MΩ*km                                   |
| Conductor resistance                        | 39 Ω/km (at 20 °C)                              |
| Nominal voltage, conductor                  | ≤ 300 V   |
| Test voltage, conductor                     | ≥ 1200 V  |
| Overall twist                               | 3 wires, twisted                                |
| Outer sheath, material                      | PUR   |
| Material conductor insulation               | PP  |
| Conductor material                          | Bare Cu litz wires                              |
| Smallest bending radius, fixed installation | 22.5 mm   |
| Number of bending cycles                    | 15000000  |
| Bending radius                              | 50 mm   |
| Traversing path                             | 0.9 m   |
| Traversing rate                             | 5 m/s   |
| Acceleration                                | 30 m/s <sup>2</sup>                             |
| Ambient temperature (operation)             | -40 °C ... 80 °C (cable, fixed installation)    |
| Ambient temperature (operation)             | -20 °C ... 80 °C (cable, flexible installation) |
| Flame resistance                            | According to DIN VDE 0482                       |
| Flame resistance                            | According to DIN EN 50265-2-1                   |

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### Conductor data

|                  |  |
|------------------|--|
| Halogen-free     | in accordance with DIN VDE 0472 part 815                   |
| Other resistance | Largely oil-resistant                                      |
| Other resistance | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |

## Classifications

### eclass

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |

### etim

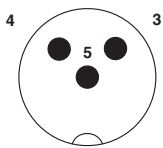
|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |

### unspsc

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

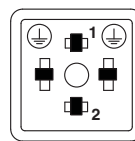
## Drawings

### Schematic diagram



Pin assignment M12 plug, 3-pos., valve connector

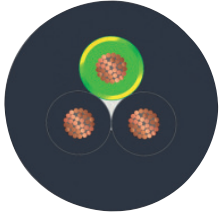
### Schematic diagram



Valve connector connector pin assignment, type C

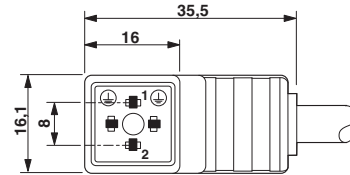
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Cable cross section



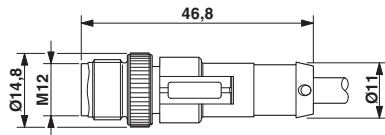
PUR halogen-free black [PUR]

Dimensioned drawing



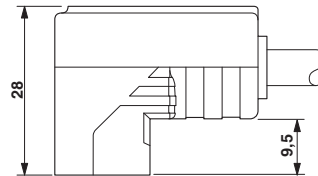
Valve connector, type C

Dimensioned drawing



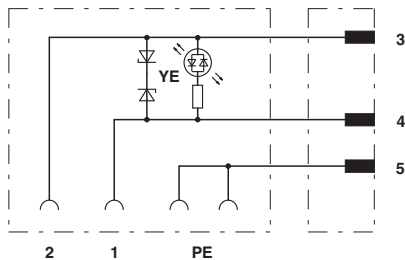
M12 x 1 male connector, straight

Dimensioned drawing



Valve connector, type C, side view

Circuit diagram



Contact assignment of M12 plug and valve connector