

## Sensor/actuator cable - SAC-5P-M12MS/ 5,0-PVC/M12FS - 1417521

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Sensor/actuator cable, 5-position, PVC, black RAL 9005, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: 5 m

### Your advantages

- ✔ Easy and safe: 100% electrically tested plug-in components

### Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 1 pc  |
| Minimum order quantity | 20 pc   |
| GTIN                   | <br>4 055626 117331 |
| GTIN                   | 4055626117331   |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 5 m |
|-----------------|-----|

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
|---------------------------------|----------------------------------|

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 4 A                           |
| Rated voltage                | 48 V AC<br>60 V DC            |
| Number of positions          | 5                             |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | unwired                       |

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## Technical data

### General

|                             |       |
|-----------------------------|-------|
| Overvoltage category        | II    |
| Degree of pollution         | 3     |
| Insertion/withdrawal cycles | ≥ 100 |

### Material

|  |   |
|--|---|
| Flammability rating according to UL 94 | HB  |
| Contact material                       | CuSn  |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Material, knurls                       | Zinc die-cast, nickel-plated                |
| Sealing material                       | NBR   |

### Standards and Regulations

|  |                 |
|--|-----------------|
| Standard designation                   | M12 connector   |
| Standards/regulations                  | IEC 61076-2-101 |
| Flammability rating according to UL 94 | HB              |

### Cable

|   |   |
|---|---|
| Cable type                                    | PVC black                               |
| Cable type (abbreviation)                     | PVC                                     |
| Cable abbreviation                            | LiYY                                    |
| UL AWM style                                  | 2464 / 1729 (80°C/300 V)                |
| Conductor cross section                       | 5x 0.34 mm <sup>2</sup> (Signal line)   |
| AWG signal line                               | 22                                      |
| Conductor structure signal line               | 19x 0.15 mm                             |
| Core diameter including insulation            | 1.26 mm ±0.05 mm                        |
| Thickness, insulation                         | ≥ 0.23 mm (Core insulation)             |
| Wire colors                                   | brown, white, blue, black, green-yellow |
| Overall twist                                 | 5 wires around filler to the core       |
| External sheath, color                        | black RAL 9005                          |
| Outer sheath thickness                        | ≥ 0.76 mm                               |
| External cable diameter D                     | 5 mm ±0.15 mm                           |
| Minimum bending radius, fixed installation    | 5 x D                                   |
| Minimum bending radius, flexible installation | 10 x D                                  |
| Cable weight                                  | 51 kg/km                                |
| Outer sheath, material                        | PVC                                     |
| Material conductor insulation                 | PVC                                     |
| Conductor material                            | Bare Cu litz wires                      |
| Insulation resistance                         | ≥ 200 MΩ*km (at 20 °C)                  |
| Conductor resistance                          | max. 57 Ω/km (at 20 °C)                 |
| Nominal voltage, cable                        | ≤ 300 V                                 |

# Sensor/actuator cable - SAC-5P-M12MS/ 5,0-PVC/M12FS - 1417521

## Technical data

### Cable

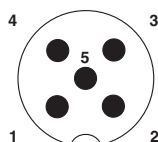
|                                 |   |
|---------------------------------|---|
| Test voltage, cable             | ≥ 3000 V  |
| Flame resistance                | As per UL-Style 2464                            |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -25 °C ... 80 °C (cable, flexible installation) |

### Environmental Product Compliance

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

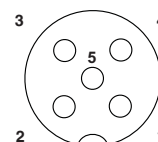
## Drawings

Schematic diagram



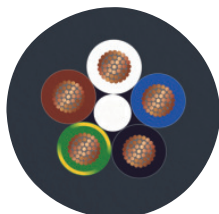
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



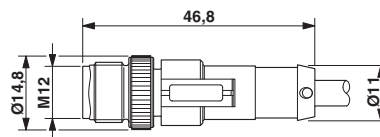
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



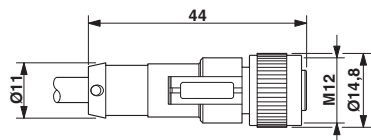
PVC black [PVC]

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

## Approvals

### Approvals

# Sensor/actuator cable - SAC-5P-M12MS/ 5,0-PVC/M12FS - 1417521

## Approvals

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Approvals

UL Listed / cUL Listed / cULus Listed

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Ex Approvals

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## Approval details

|                    |  |   |               |
|--------------------|--|---|---------------|
| UL Listed          |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
|                    |  |   |               |
| Nominal voltage UN |  | 125 V   |               |
| Nominal current IN |  | 4 A   |               |

|                    |  |   |               |
|--------------------|--|---|---------------|
| cUL Listed         |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
|                    |  |   |               |
| Nominal voltage UN |  | 125 V   |               |
| Nominal current IN |  | 4 A   |               |

|              |  |  |  |
|--------------|--|--|--|
| cULus Listed |  |  |  |
|--------------|--|--|--|

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