

# Sensor/actuator cable - SAC-5P-M12MS/5,0-PVC/M12FS B-L - 1432046

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

### Your advantages

☑ Our PVC cable for average mechanical strain



# **Key Commercial Data**

| Packing unit | 1 pc            |
|--------------|-----------------|
| GTIN         | 4 046356 506632 |
| GTIN         | 4046356506632   |

### Technical data

### **Dimensions**

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

#### Ambient conditions

| Ambient temperature (operation) | -25 °C 90 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection            | IP65                         |
|                                 | IP67                         |
|                                 | IP68                         |

#### General

| Rated current at 40°C | 4 A                           |
|-----------------------|-------------------------------|
| Rated voltage         | 60 V                          |
| Number of positions   | 5                             |
| Insulation resistance | $\geq$ 100 M $\Omega$         |
| Coding                | A - standard                  |
| Standards/regulations | M12 connector IEC 61076-2-101 |



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# Technical data

## General

| Status display               | No      |
|------------------------------|---------|
| Protective circuit/component | unwired |
| Overvoltage category         | II      |
| Degree of pollution          | 3       |
| Insertion/withdrawal cycles  | ≥ 100   |

### Material

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

## Standards and Regulations

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

### 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 mm² (Signal line)               |
| AWG signal line                               | 22                                      |
| Conductor structure signal line               | 42x 0.10 mm                             |
| Core diameter including insulation            | 1.45 mm ±0.02 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                     | 5.9 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                         | $\geq$ 200 M $\Omega$ *km (at 20 °C)    |
| Conductor resistance                          | max. 58 Ω/km (at 20 °C)                 |
|                                               |                                         |



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### Technical data

### Cable

| Nominal voltage, cable          | ≤ 300 V                                      |
|---------------------------------|----------------------------------------------|
| Test voltage, cable             | ≥ 3000 V                                     |
| Flame resistance                | As per UL-Style 2464                         |
|                                 | according to UL 758/1581 FT1                 |
| Resistance to oil               | According to DIN EN 60811-2-1, 168 h at 90°C |
| 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



### Schematic diagram



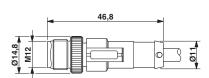
Pin assignment M12 male connector, 5-pos., A-coded, male side

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

#### Cable cross section



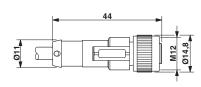
### Dimensional drawing



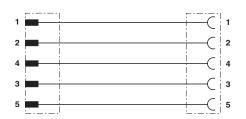
PVC black [PVC]

Plug, M12 x 1, straight, shielded

### Dimensional drawing



### Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 plug and the M12 socket



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