

## Sensor/actuator cable - SAC-3P-M12MS/0,6-PVC/M12FS B-L - 1431911

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Sensor/actuator cable, 3-position, PVC, black RAL 9005, Plug straight M12, A-coded, on Socket straight M12, A-coded, cable length: 0.6 m

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our PVC cable for average mechanical strain

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 046356 506526 |
| GTIN         | 4046356506526                                                                                           |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 0.6 m |
|-----------------|-------|

#### 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         | 250 V                         |
| Number of positions   | 3                             |
| Insulation resistance | ≥ 100 MΩ                      |
| 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                  |
| Torque                       | 0.4 Nm (M12 connector) |

### 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                |

### 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                       | 3x 0.34 mm <sup>2</sup> (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, blue, black                    |
| Overall twist                                 | 3 wires, twisted                      |
| External sheath, color                        | black RAL 9005                        |
| Outer sheath thickness                        | ≥ 0.76 mm                             |
| External cable diameter D                     | 5.2 mm ±0.2 mm                        |
| Minimum bending radius, fixed installation    | 5 x D                                 |
| Minimum bending radius, flexible installation | 10 x D                                |
| Cable weight                                  | 40 kg/km                              |
| Outer sheath, material                        | PVC                                   |
| Material conductor insulation                 | PVC                                   |
| Conductor material                            | Bare Cu litz wires                    |
| Insulation resistance                         | ≥ 100 MΩ*km (at 20 °C)                |

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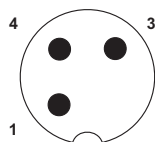
## Technical data

### Cable

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Conductor resistance            | max. 58 Ω/km (at 20 °C)                         |
| Nominal voltage, cable          | ≤ 300 V                                         |
| Test voltage, cable             | ≥ 2500 V                                        |
| Flame resistance                | As per UL-Style 2464                            |
| 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) |

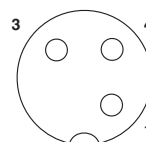
## Drawings

Schematic diagram



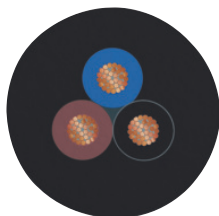
Pin assignment M12 plug, 3-pos., A-coded, view male side

Schematic diagram



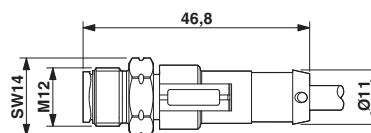
Pin assignment M12 socket, 3-pos., A-coded, view female side

Cable cross section



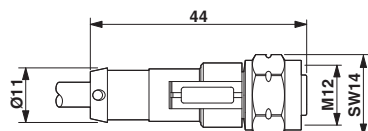
PVC black [PVC]

Dimensional drawing



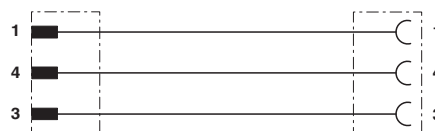
Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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