

## Sensor/Actuator cable - SAC-4P-M12MS/0,3-600/M12FR FB - 1404027

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Sensor/Actuator cable, 4-position, PP-EPDM halogen-free, Gray RAL 7035, Plug straight M12, A-coded, on Socket angled M12, A-coded, Cable length: 0.3 m, Hygienic design, with plastic knurl

### Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Easy to clean, thanks to the special hygienic design
- ✓ Contamination can be detected quickly – thanks to the light color



### Key commercial data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 046356 677721 |
| Weight per Piece (excluding packing) | 18.9 g                                                                                                  |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | Poland                                                                                                  |
| Note                                 | Made to Order (non-returnable)                                                                          |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 0.3 m |
|-----------------|-------|

#### Ambient conditions

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Ambient temperature (operation) | -40 °C ... 105 °C (Plug / socket) |
| Degree of protection            | IP65                              |
|                                 | IP67                              |
|                                 | IP68                              |
|                                 | IP69K                             |

#### General

|                       |       |
|-----------------------|-------|
| Rated current at 40°C | 4 A   |
| Rated voltage         | 250 V |
| Number of positions   | 4     |

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## Technical data

### General

|                              |                                          |
|------------------------------|------------------------------------------|
| Contact resistance           | $\leq 5 \text{ m}\Omega$                 |
| Insulation resistance        | $\geq 100 \text{ M}\Omega$               |
| Coding                       | A - standard                             |
| Standards/regulations        | M12 connector IEC 61076-2-101            |
|                              | Material conformance FDA 21 CFR 177.2600 |
| Status display               | No                                       |
| Protective circuit/component | Unwired                                  |
| Surge voltage category       | II                                       |
| Pollution degree             | 3                                        |
| Insertion/withdrawal cycles  | $\geq 100$                               |
| Torque                       | 0.4 Nm (M12 connector)                   |

### Material

|                          |               |
|--------------------------|---------------|
| Contact material         | CuSn          |
| Contact surface material | Ni/Au         |
| Contact carrier material | PP            |
| Material of grip body    | PP            |
| Material, knurls         | Polypropylene |
| Sealing material         | FKM           |

### Cable

|                                                 |                                          |
|-------------------------------------------------|------------------------------------------|
| Cable type                                      | Halogen-free PP gray                     |
| Cable type (abbreviation)                       | 600                                      |
| Cable abbreviation                              | Li9Y9Y                                   |
| Conductor cross section                         | 4x 0.34 mm <sup>2</sup> (signal line)    |
| AWG signal line                                 | 22                                       |
| Conductor structure signal line                 | 42x 0.10 mm                              |
| Core diameter including insulation              | 1.27 mm $\pm$ 0.02 mm (signal line)      |
| Thickness, insulation                           | $\geq 0.21 \text{ mm}$ (Core insulation) |
| Wire colors                                     | brown, white, blue, black                |
| Overall twist                                   | 4 wires, twisted                         |
| Length of twist, overall twist                  | 48 mm                                    |
| External sheath, color                          | Gray RAL 7035                            |
| Outer sheath thickness                          | approx. 0.8 mm                           |
| External cable diameter D                       | 4.7 mm $\pm$ 0.15 mm                     |
| Minimum bending radius, fixed installation      | 5 x D                                    |
| Minimum bending radius, flexible installation   | 10 x D                                   |
| Number of bending cycles                        | 4000000                                  |
| Minimum bending radius, drag chain applications | 10 x D                                   |
| Traversing path                                 | 10 m                                     |
| Traversing rate                                 | 3 m/s                                    |
| Acceleration                                    | 10 m/s <sup>2</sup>                      |

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### Technical data

#### Cable

|                                 |                                                                                   |
|---------------------------------|-----------------------------------------------------------------------------------|
| Cable weight                    | 30 kg/km                                                                          |
| Outer sheath, material          | PP-EPDM                                                                           |
| Material conductor insulation   | PP                                                                                |
| Conductor material              | Bare Cu litz wires                                                                |
| Conductor resistance            | 58 $\Omega$ /km (at 20 °C)                                                        |
| Nominal voltage, cable          | $\leq$ 300 V AC                                                                   |
| Test voltage, cable             | $\geq$ 3000 V AC (Spark test)                                                     |
| Special properties              | FDA compliant according to FDA 21 CFR 177.2600                                    |
|                                 | highly flexible                                                                   |
|                                 | partly suitable for use with drag chain                                           |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                                          |
| Other resistance                | Resistant to cold bending and cold impacts According to DIN EN 60811-1-4 (-40 °C) |
| Ambient temperature (operation) | -40 °C ... 105 °C (cable, fixed installation)                                     |
|                                 | -25 °C ... 105 °C (cable, flexible installation)                                  |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| 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 |
| eCl@ss 8.0 | 27279218 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

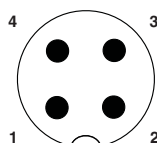
#### UNSPSC

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

### Drawings

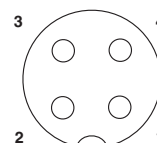
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Schematic diagram



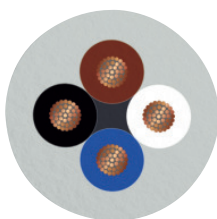
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



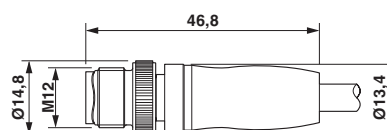
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



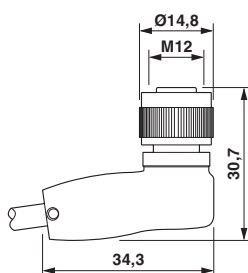
Halogen-free PP gray [600]

Dimensioned drawing



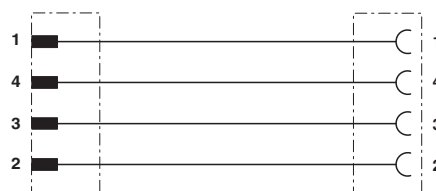
M12 x 1 plug, straight

Dimensioned drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 plug and the M12 socket