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# Sensor/actuator cable - SAC-3P-M12MS/ 2,0-170/M 8FR - 1538461

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket angled M8, cable length: 2 m

**RoHS**

## Key Commercial Data

| Packing unit | 1 pc |
|---|---|
| GTIN | |
| GTIN | 4046356075404 |

## Technical data

### Dimensions

| Length of cable | 2 m |
|---|---|

### Ambient conditions

| Degree of protection | IP65 |
|---|---|
| | IP67 |
| | IP68 |

### General

| Rated current at 40°C | 4 A |
|---|---|
| Rated voltage | 48 V AC |
| | 60 V DC |
| Number of positions | 3 |
| Insulation resistance | $\geq 100\ M\Omega$ |
| Coding | A - standard |
| Status display | No |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | $\geq 100$ |

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## Technical data

### 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

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

### Cable

| | |
|---|---|
| Cable type | PUR halogen-free black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| UL AWM style | 20549 |
| Conductor cross section | 3x 0.25 mm² |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm ±0.02 mm |
| Thickness, insulation | ≥ 0.21 mm (Core insulation) |
| Wire colors | brown, blue, black |
| Overall twist | 3 wires, twisted |
| Length of twist, overall twist | 40 mm |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 0.5 mm |
| External cable diameter D | 3.6 mm ±0.15 mm |
| Smallest bending radius, fixed installation | 18 mm |
| Smallest bending radius, movable installation | 36 mm |
| Number of bending cycles | 10000000 |
| Bending radius | 44 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s² |
| Cable weight | 18 kg/km |
| Outer sheath, material | PUR |
| Material conductor insulation | PP |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | ≥ 100 GΩ*km (at 20 °C) |
| Conductor resistance | ≤ 78 Ω/km (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage, cable | ≥ 3000 V |

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## Technical data

### Cable

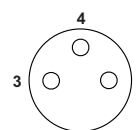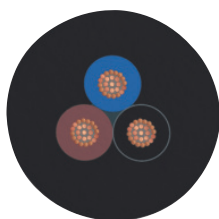| Special properties | Flexible cable conduit capable |
|---|---|
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| | DIN EN 60332-2-2 (20 s) |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | hydrolysis and microbe resistant |
| | Highly resistant to acids, alkaline solutions and solvents |
| | Resistant to salt water |
| | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -25 °C ... 80 °C (cable, flexible installation) |

## Drawings

Schematic diagram

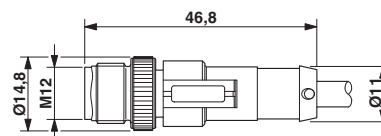Pin assignment M12 plug, 3-pos., A-coded, view male side

Schematic diagram

Pin assignment M8 socket, 3-pos., view female side

Cable cross section
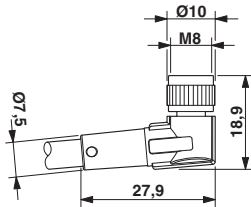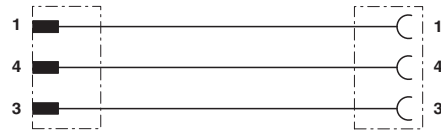
PUR halogen-free black [PUR]

Dimensional drawing

46,8

Ø14,8  M12

Ø11

Plug, M12 x 1, straight, shielded

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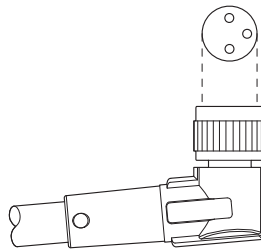# Sensor/actuator cable - SAC-3P-M12MS/ 2,0-170/M 8FR - 1538461

Dimensional drawing

Circuit diagram

Contact assignment of M12 connector/socket

Socket M8 x 1, angled

Schematic diagram

Layout of connector pin assignments

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