

## Sensor/Actuator cable - SAC-5P-M12MS/ 0,3-802/M12FR - 1457283

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Sensor/Actuator cable, 5-position, PUR halogen-free, welding sputter-resistant, highly flexible, Gray RAL 7001, Plug straight M12, A-coded, on Socket angled M12, A-coded, Cable length: 0.3 m, for robots and drag chains

### Why buy this product

- Easy and safe: 100% electrically tested plug-in components
- Flexible: cable supports a high degree of torsion and bending
- Reliable solution for the body shop as cable is resistant to welding sparks



### Key commercial data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 046356 593564 |
| Weight per Piece (excluding packing) | 30.58 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) | -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      |
| Contact resistance    | ≤ 5 mΩ |

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## Technical data

### General

|                              |                               |
|------------------------------|-------------------------------|
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | Unwired                       |
| Surge voltage category       | II                            |
| Pollution degree             | 3                             |
| Insertion/withdrawal cycles  | ≥ 100                         |
| Torque                       | 0.4 Nm (M12 connector)        |

### Material

|   |   |
|---|---|
| Inflammability class 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   |

### Cable

|   |  |
|---|--|
| Note  | Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments. |
| Cable type                                    | PUR, halogen-free, highly stranded, resistant to welding sparks, gray                            |
| Cable type (abbreviation)                     | 802  |
| Cable abbreviation                            | Li12Y11Y-HF  |
| Conductor cross section                       | 5x 0.34 mm <sup>2</sup> (signal line)  |
| AWG signal line                               | 22   |
| Conductor structure signal line               | 42x 0.10 mm  |
| Core diameter including insulation            | 1.3 mm ±0.05 mm (signal line)  |
| Wire colors                                   | Black, brown, blue, white, green/yellow  |
| Overall twist                                 | 5 wires around filler to the core  |
| External sheath, color                        | Gray RAL 7001  |
| External cable diameter D                     | 5.1 mm ±0.2 mm   |
| Minimum bending radius, fixed installation    | 5 x D  |
| Minimum bending radius, flexible installation | 5 x D  |
| Number of bending cycles                      | 15000000   |
| Bending radius                                | 50 mm  |
| Traversing path                               | 0.9 m  |
| Traversing rate                               | 5 m/s  |
| Acceleration                                  | 30 m/s <sup>2</sup>  |
| Torsion force                                 | ± 360 °/m  |
| Outer sheath, material                        | PUR  |

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### Technical data

#### Cable

|                                 |  |
|---------------------------------|--|
| Material conductor insulation   | PES  |
| Conductor material              | Bare Cu litz wires   |
| Insulation resistance           | ≥ 20 MΩ*km   |
| Conductor resistance            | approx. 53 Ω/km  |
| Nominal voltage, cable          | 300 V  |
| Test voltage, cable             | 1200 V   |
| Special properties              | Sheath resistant to welding beads, can be recycled, matt, without adhesion, wear-resistant, flame resistant and self-extinguishing |
|                                 | Free from silicone and cadmium   |
|                                 | Free of substances which would hinder coating with paint or varnish  |
| Flame resistance                | DIN VDE 0472 part 804, test type B   |
|                                 | IEC 60332-1  |
|                                 | in acc. with UL FT-2   |
| Halogen-free                    | The cable is halogen-free  |
| Resistance to oil               | As per VDE 0472 Part 803   |
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents   |
| Ambient temperature (operation) | -40 °C ... 90 °C (cable, fixed installation)   |
|                                 | -30 °C ... 90 °C (cable, flexible installation)  |
|                                 | to 120 °C (for 3000 h)   |

### 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 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 |

# Sensor/Actuator cable - SAC-5P-M12MS/ 0,3-802/M12FR - 1457283

## Approvals

Approvals

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Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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Ex Approvals


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Approvals submitted


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## Approval details

|  |       |
|--|-------|
| UL Listed  |       |
|  |       |
| Nominal current IN   | 4 A   |
| Nominal voltage UN   | 125 V |

|  |       |
|--|-------|
| cUL Listed  |       |
|  |       |
| Nominal current IN   | 4 A   |
| Nominal voltage UN   | 125 V |

|     |
|-----|
| EAC |
|-----|

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

## Accessories

Accessories

Protective cap

# Sensor/Actuator cable - SAC-5P-M12MS/ 0,3-802/M12FR - 1457283

## Accessories

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



## Screwdriver tools

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

## Torque tool

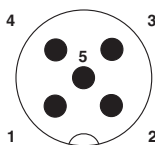
Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

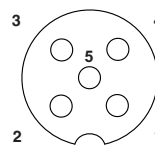
## Drawings

Schematic diagram



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

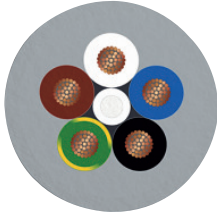
Schematic diagram



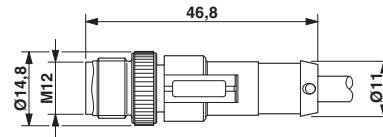
Pin assignment M12 socket, 5-pos., A-coded, socket side view

# Sensor/Actuator cable - SAC-5P-M12MS/ 0,3-802/M12FR - 1457283

Cable cross section



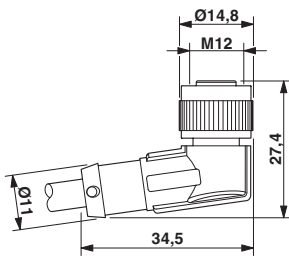
Dimensioned drawing



PUR, halogen-free, highly stranded, resistant to welding sparks, gray [802]

M12 x 1 plug, straight

Dimensioned drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 plug and the M12 socket