

## Sensor/Actuator cable - SAC-4P-M12MS/0,3-PUR/M 8FS - 1694923

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Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M8, Cable length: 0.3 m

### Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable

### Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 1             |
| GTIN             | 4017918180393 |

### Technical data

#### Dimensions

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

#### Ambient conditions

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

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 4 A                           |
| Rated voltage                | 30 V                          |
| Number of positions          | 4                             |
| Contact resistance           | ≤ 5 mΩ                        |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Standards/regulations        | M8 connector IEC 61076-2-104  |
| Status display               | No                            |
| Protective circuit/component | Unwired                       |
| Surge voltage category       | II                            |
| Pollution degree             | 3                             |

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## Technical data

### General

|                             |                        |
|-----------------------------|------------------------|
| Insertion/withdrawal cycles | ≥ 100                  |
| Torque                      | 0.4 Nm (M12 connector) |
| Torque                      | 0.2 Nm (M8 connectors) |

### 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

|                                               |                                       |
|-----------------------------------------------|---------------------------------------|
| Cable type                                    | PUR halogen-free black                |
| Cable type (abbreviation)                     | PUR                                   |
| Cable abbreviation                            | Li9Y11Y-HF                            |
| Conductor cross section                       | 4x 0.25 mm <sup>2</sup> (signal line) |
| AWG signal line                               | 24                                    |
| Conductor structure signal line               | 32x 0.10 mm                           |
| Core diameter including insulation            | 1.17 mm ±0.02 mm (signal line)        |
| Thickness, insulation                         | ≥ 0.21 mm (Core insulation)           |
| Thickness, insulation                         | approx. 0.7 mm (Outer cable sheath)   |
| Wire colors                                   | brown, white, blue, black             |
| Overall twist                                 | 4 wires, twisted                      |
| External sheath, color                        | RAL 9005 (black gray)                 |
| External cable diameter D                     | 4.4 mm ±0.15 mm                       |
| Smallest bending radius, fixed installation   | 22 mm                                 |
| Smallest bending radius, movable installation | 44 mm                                 |
| Number of bending cycles                      | 4000000                               |
| Bending radius                                | 44 mm                                 |
| Traversing path                               | 10 m                                  |
| Traversing rate                               | 3 m/s                                 |
| Acceleration                                  | 5 m/s <sup>2</sup>                    |
| Cable weight                                  | 25 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                          | max. 78 Ω/km (at 20 °C)               |
| Nominal voltage, cable                        | ≤ 300 V                               |

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## Technical data

### Cable

|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| Test voltage, cable             | ≥ 3000 V                                                            |
| Special properties              | Flexible cable conduit capable                                      |
| Special properties              | Silicone-free                                                       |
| Special properties              | Free of substances which would hinder coating with paint or varnish |
| Flame resistance                | in accordance with DIN UL-Style 20549                               |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                            |
| Resistance to oil               | in accordance with DIN EN 60811-2-1                                 |
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents          |
| Other resistance                | hydrolysis and microbe resistant                                    |
| Other resistance                | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)                        |
| Ambient temperature (operation) | -25 °C ... 80 °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 | 27061801 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| 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 |

## approvals

UL Listed / cUL Listed / GOST / cULus Listed /

## Sensor/Actuator cable - SAC-4P-M12MS/0,3-PUR/M 8FS - 1694923

### approvals

#### Approval details

|                                                                                             |       |
|---------------------------------------------------------------------------------------------|-------|
| UL Listed  |       |
| Nominal voltage UN                                                                          | 125 V |
| Nominal current IN                                                                          | 4 A   |
| mm²/AWG/kcmil                                                                               |       |

|                                                                                              |       |
|----------------------------------------------------------------------------------------------|-------|
| cUL Listed  |       |
| Nominal voltage UN                                                                           | 125 V |
| Nominal current IN                                                                           | 4 A   |
| mm²/AWG/kcmil                                                                                |       |

|                                                                                          |
|------------------------------------------------------------------------------------------|
| GOST  |
|------------------------------------------------------------------------------------------|

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

### accessories

#### Protective cap

PROT-M12 FS-PA-CHAIN - 1430873



PROT-M 8 MS-PA-CHAIN - 1430860



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accessories

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### Safety locking

SAC-M12-EXCLIP-M - 1558988



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### Conductor marking

PABA WH/15 - 1013151



PABA YE/15 - 1013698



PABA RD/15 - 1013944



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### Marker carrier cable

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### accessories

PATO 2/15 - 1013122



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PATO 3/15 - 1013135



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PATO 4/15 - 1013148



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### Marker pen

B-STIFT - 1051993



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### Torque tool

TSD 02 SAC - 1208487



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### accessories

TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



### Screwdriver tools

SAC BIT M8-D10 - 1208461



TSD-M SAC-BIT ADAPTER - 1212600



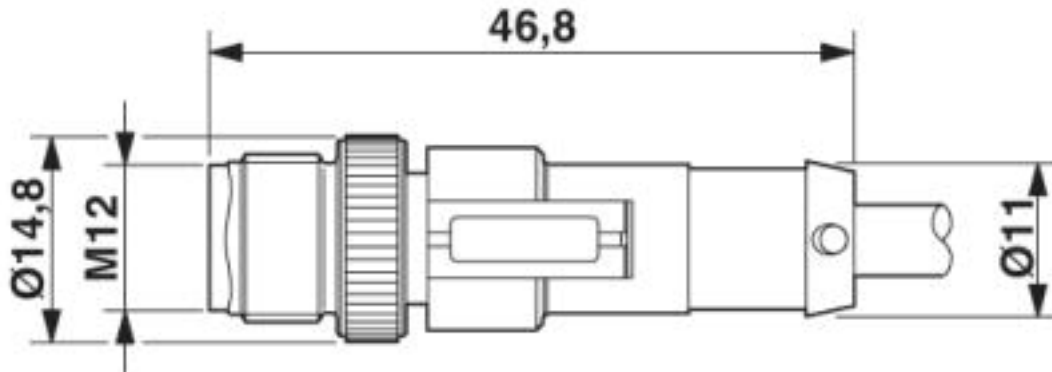
SAC BIT M12-D15 - 1208432



### Drawings

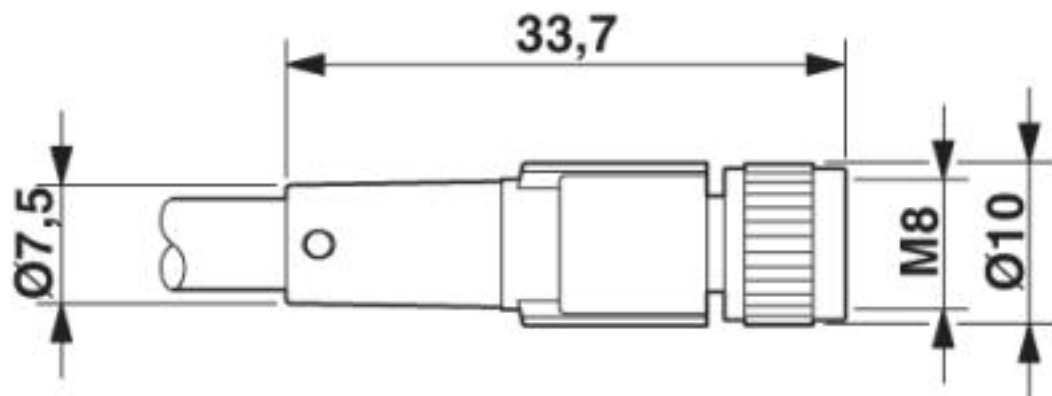
## Sensor/Actuator cable - SAC-4P-M12MS/0,3-PUR/M 8FS - 1694923

Dimensioned drawing



M12 x 1 plug, straight

Dimensioned drawing

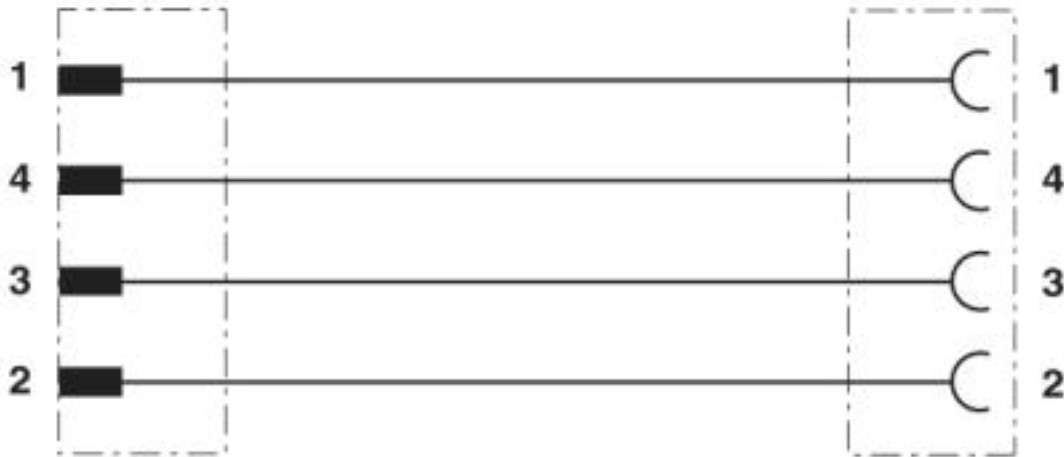


Socket M8 x 1, straight



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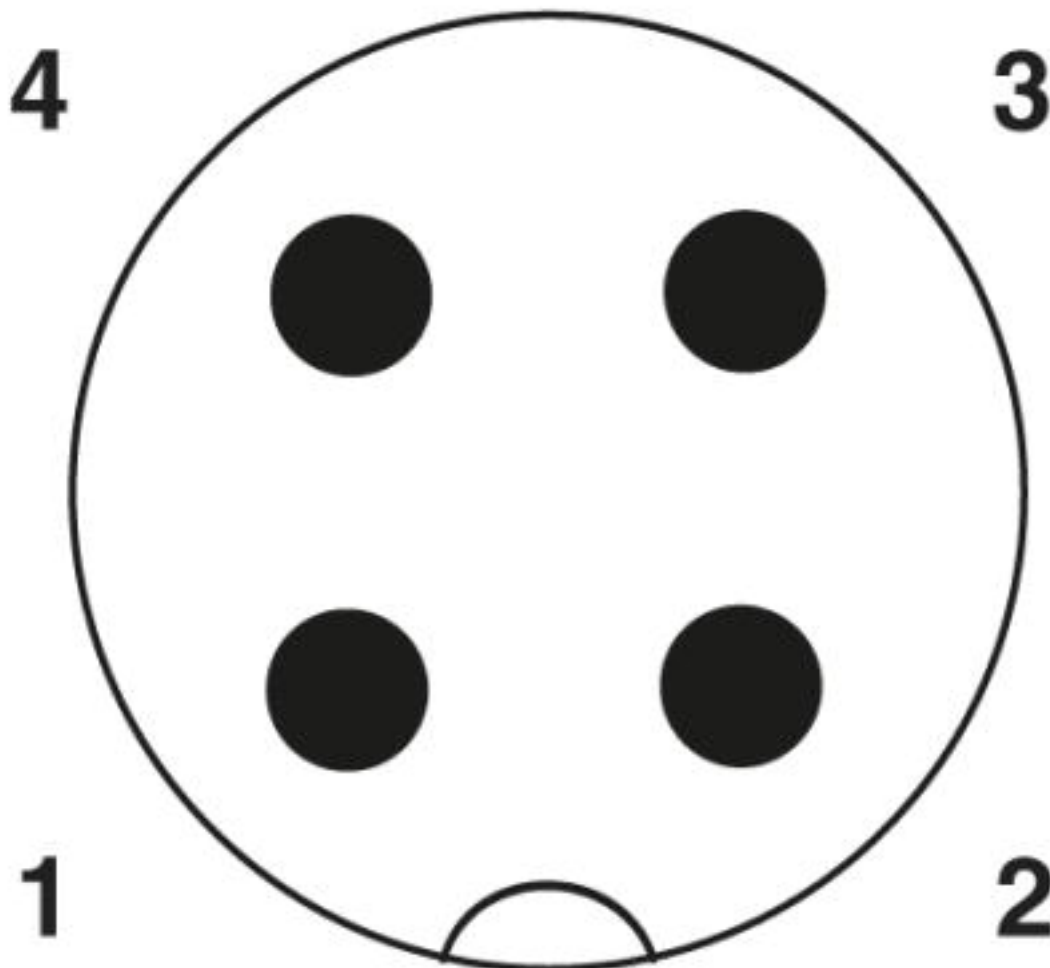
Circuit diagram



Contact assignment of M12 plugs / M8 sockets

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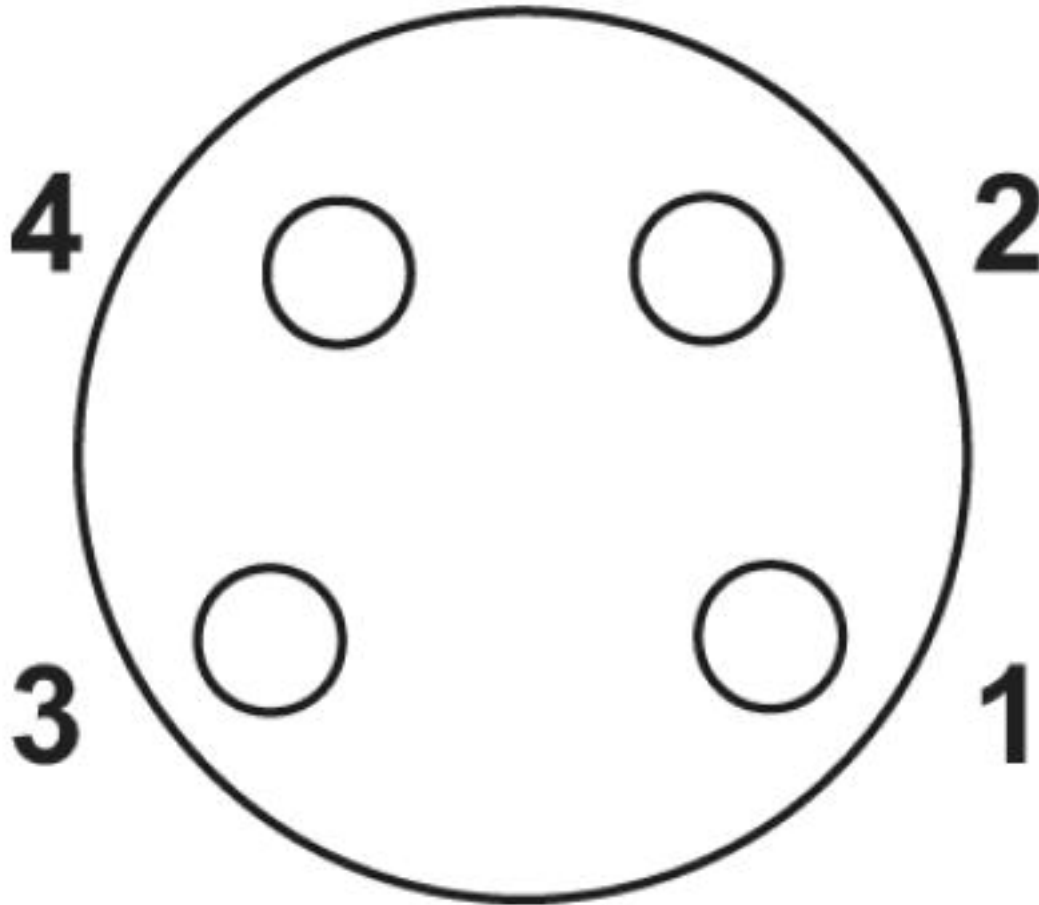
Schematic diagram



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

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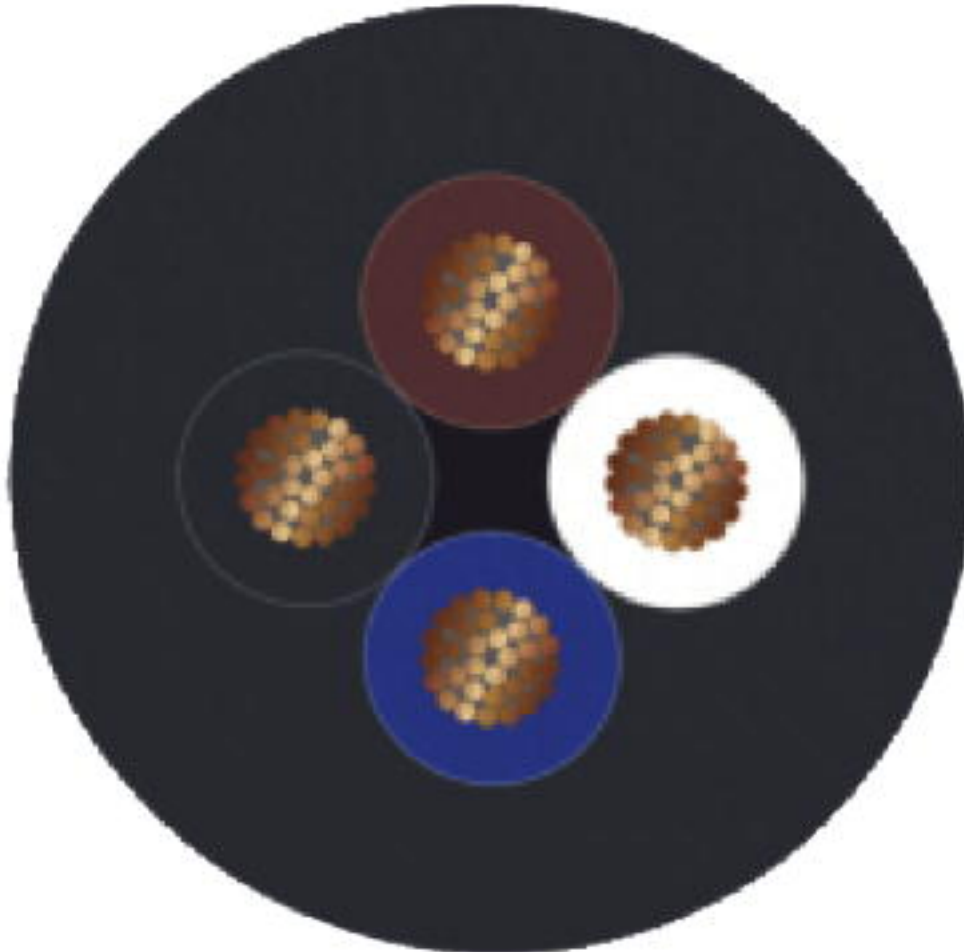
Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

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Cable cross section



PUR halogen-free black [PUR]

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