# Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FS-2L - 1694787

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Socket straight M12, A-coded, with 2 LEDs, Cable length: 5 m

## Product Features

- Easy and safe: 100% electrically tested plug-in components
- Our standard: robust halogen-free PUR cable
- Convenient: increased machine availability thanks to quick and easy diagnostics

## Key commercial data

| | |
|---|---|
| **package_quantity** | 1 |
| **GTIN** | 4017918179786 |

## Technical data

### Dimensions

| | |
|---|---|
| **Length of cable** | 5 m |
| **Stripping length of the free conductor end** | 50 mm |

### 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** | 24 V |
| **Number of positions** | 3 |
| **Contact resistance** | ≤ 5 mΩ |
| **Insulation resistance** | ≥ 100 MΩ |
| **Coding** | A - standard |
| **Standards/regulations** | M12 connector IEC 61076-2-101 |
| **Status display** | 2 LEDs |
| **Protective circuit/component** | Unwired |
| **Surge voltage category** | II |
| **Pollution degree** | 3 |
| **Insertion/withdrawal cycles** | ≥ 100 |

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## Technical data

### General

| | |
|---|---|
| **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

| | |
|---|---|
| **Cable type** | PUR halogen-free black |
| **Cable type (abbreviation)** | PUR |
| **Cable abbreviation** | Li9Y11Y |
| **UL AWM style** | 20549 |
| **Conductor cross section** | 3x 0.34 mm² (signal line) |
| **AWG signal line** | 22 |
| **Conductor structure signal line** | 42x 0.10 mm |
| **Core diameter including insulation** | 1.27 mm ±0.02 mm (signal line) |
| **Thickness, insulation** | ≥ 0.21 mm (Core insulation) |
| **Thickness, insulation** | approx. 0.8 mm (Outer cable sheath) |
| **Wire colors** | brown, blue, black |
| **Overall twist** | 3 wires, twisted |
| **External sheath, color** | Black-gray RAL 7021 |
| **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** | 10 m/s² |
| **Cable weight** | 26 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. 58 Ω/km (at 20 °C) |
| **Nominal voltage, cable** | ≤ 300 V |
| **Test voltage, cable** | ≥ 3000 V |
| **Special properties** | Flexible cable conduit capable |

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## Technical data

### Cable

| | |
|---|---|
| **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 /

### Approval details

# Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FS-2L - 1694787

## approvals

**UL Listed**

| | |
|---|---|
| Nominal voltage UN | 24 V |
| Nominal current IN | 4 A |
| mm²/AWG/kcmil | |

**cUL Listed**

| | |
|---|---|
| Nominal voltage UN | 24 V |
| Nominal current IN | 4 A |
| mm²/AWG/kcmil | |

**GOST**

**cULus Listed**

## accessories

**Conductor marking**

PABA WH/15 - 1013151



PABA YE/15 - 1013698



# Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FS-2L - 1694787

## accessories

PABA RD/15 - 1013944



**Marker carrier cable**

PATG 2/15 - 1013038



PATG 3/15 - 1013041



PATG 4/15 - 1013054



**Marker pen**

B-STIFT - 1051993



**Cutting tools**

# Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FS-2L - 1694787

## accessories

CUTFOX-S VDE - 1212207



**Stripping tool**

WIREFOX SAC - 1212623



WIREFOX 10 - 1212150



**Protective cap**

PROT-M12 MS-PA-CHAIN - 1430899



**Safety locking**

SAC-M12-EXCLIP-F - 1558991



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## accessories

**Torque tool**

TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



**Screwdriver tools**

TSD-M SAC-BIT ADAPTER - 1212600



SAC BIT M12-D15 - 1208432



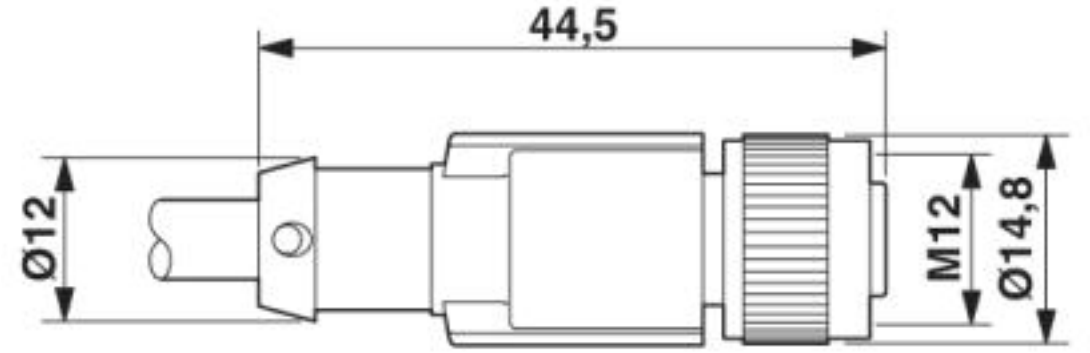
## accessories

WIREFOX SAC-1 - 1212757

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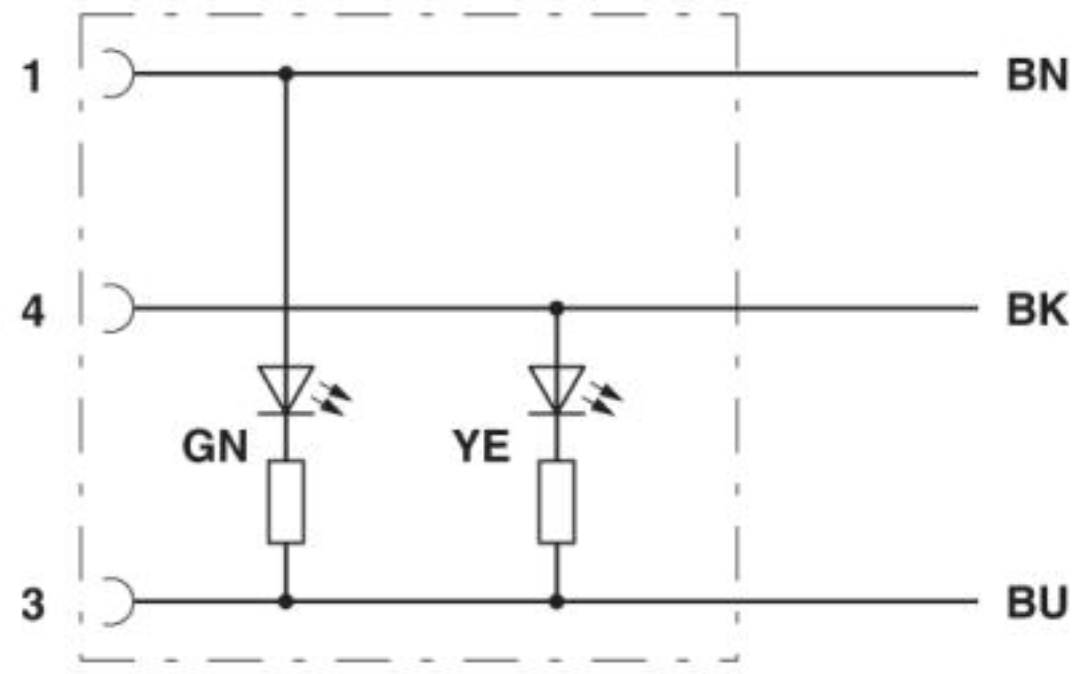
## Drawings

Dimensioned drawing




Socket M12 x 1, straight, with LED

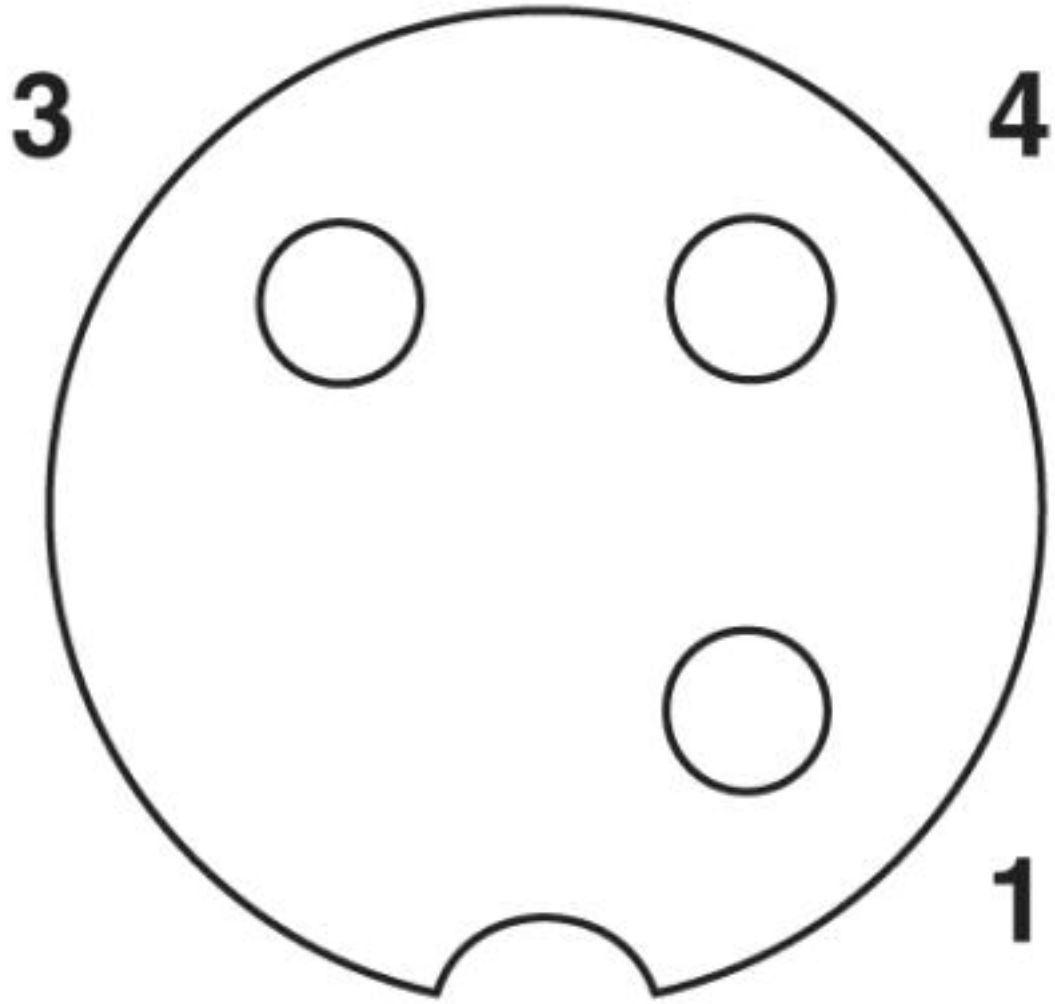
Circuit diagram




Contact assignment of M12 sockets with LED

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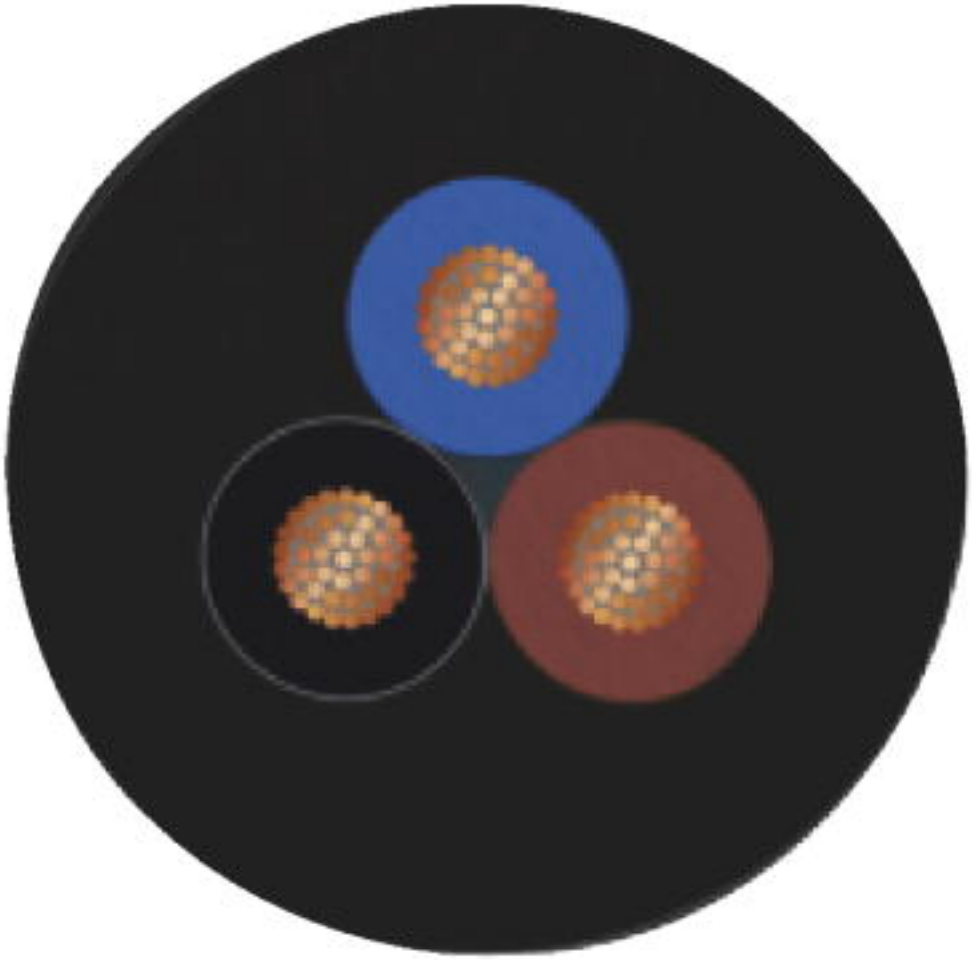
Schematic diagram




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

# Sensor/Actuator cable - SAC-3P- 5,0-PUR/M12FS-2L - 1694787

Cable cross section



PUR halogen-free black [PUR]

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