# Sensor/Actuator cable - SAC-3P-M8Y/2X3,0-PUR/M 8FS - 1458693

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M8, on Socket straight M8 and Socket straight M8, Cable length: 3 m

## Key commercial data

| | |
|---|---|
| **package_quantity** | 1 |
| **GTIN** | 4046356638043 |

## Technical data

### Dimensions

| | |
|---|---|
| **Length of cable** | 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** | 3 |
| **Contact resistance** | ≤ 5 mΩ |
| **Insulation resistance** | ≥ 100 MΩ |
| **Coding** | A - standard |
| **Standards/regulations** | M8 connector IEC 61076-2-104 |
| **Status display** | No |
| **Surge voltage category** | II |
| **Pollution degree** | 3 |
| **Torque** | 0.2 Nm (M8 knurl) |

### Material

| | |
|---|---|
| **Inflammability class according to UL 94** | HB |
| **Contact material** | CuSn |
| **Contact surface material** | Ni/Au |
| **Contact carrier material** | TPU GF |

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## Technical data

### Material

| | |
|---|---|
| **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 |
| **UL AWM style** | 20549 |
| **Conductor cross section** | 3x 0.25 mm² (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** | ≥ 0.38 mm (Core insulation) |
| **Thickness, insulation** | approx. 0.9 mm (Outer cable sheath) |
| **Wire colors** | brown, blue, black |
| **Overall twist** | 3 wires, twisted |
| **Length of twist, overall twist** | 40 mm |
| **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** | 24 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 |
| **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 |

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## Technical data

### Cable

| | |
|---|---|
| **Other resistance** | hydrolysis and microbe resistant |
| **Other resistance** | Highly resistant to acids, alkaline solutions and solvents |
| **Other resistance** | Resistant to salt water |
| **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 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 / cULus Listed /

### Approval details

**UL Listed**

| | |
|---|---|
| Nominal voltage UN | 30 V |
| Nominal current IN | 4 A |
| mm²/AWG/kcmil | |

# Sensor/Actuator cable - SAC-3P-M8Y/2X3,0-PUR/M 8FS - 1458693

## approvals

**cUL Listed**

| | |
|---|---|
| Nominal voltage UN | 30 V |
| Nominal current IN | 4 A |
| mm²/AWG/kcmil | |

**cULus Listed**

## accessories

### Torque tool

TSD 02 SAC - 1208487



### Screwdriver tools

SAC BIT M8-D10 - 1208461



### Protective cap

PROT-M8 - 1682540



### Conductor marking

# Sensor/Actuator cable - SAC-3P-M8Y/2X3,0-PUR/M 8FS - 1458693

## accessories

PABA WH/15 - 1013151



PABA YE/15 - 1013698



PABA RD/15 - 1013944



**Labeled conductor marker**

PABA WH/15 CUS - 0824444



PABA YE/15 CUS - 0824447



# Sensor/Actuator cable - SAC-3P-M8Y/2X3,0-PUR/M 8FS - 1458693

## accessories

PABA RD/15 CUS - 0824442

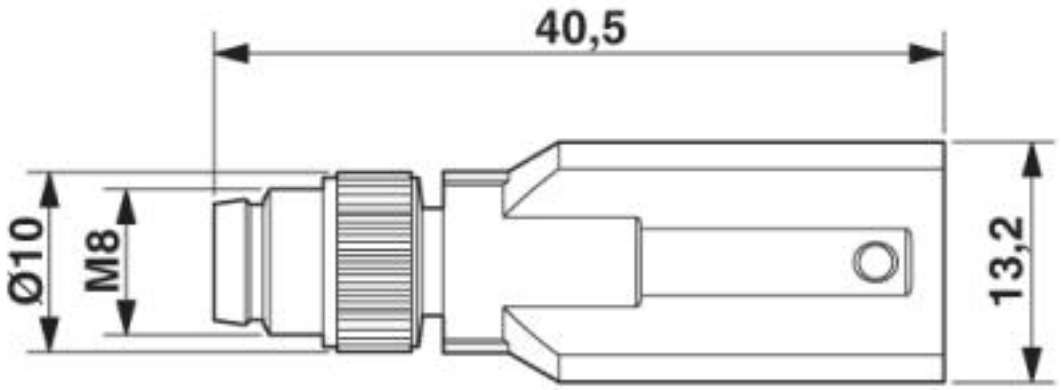


PABA BU/15 CUS - 0824441



## Drawings

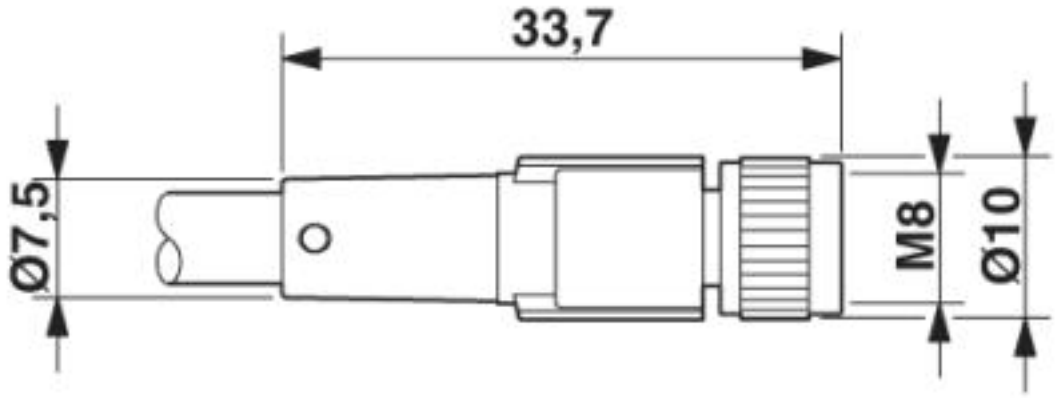
Dimensioned drawing




Plug M8 x 1, Y-distributor

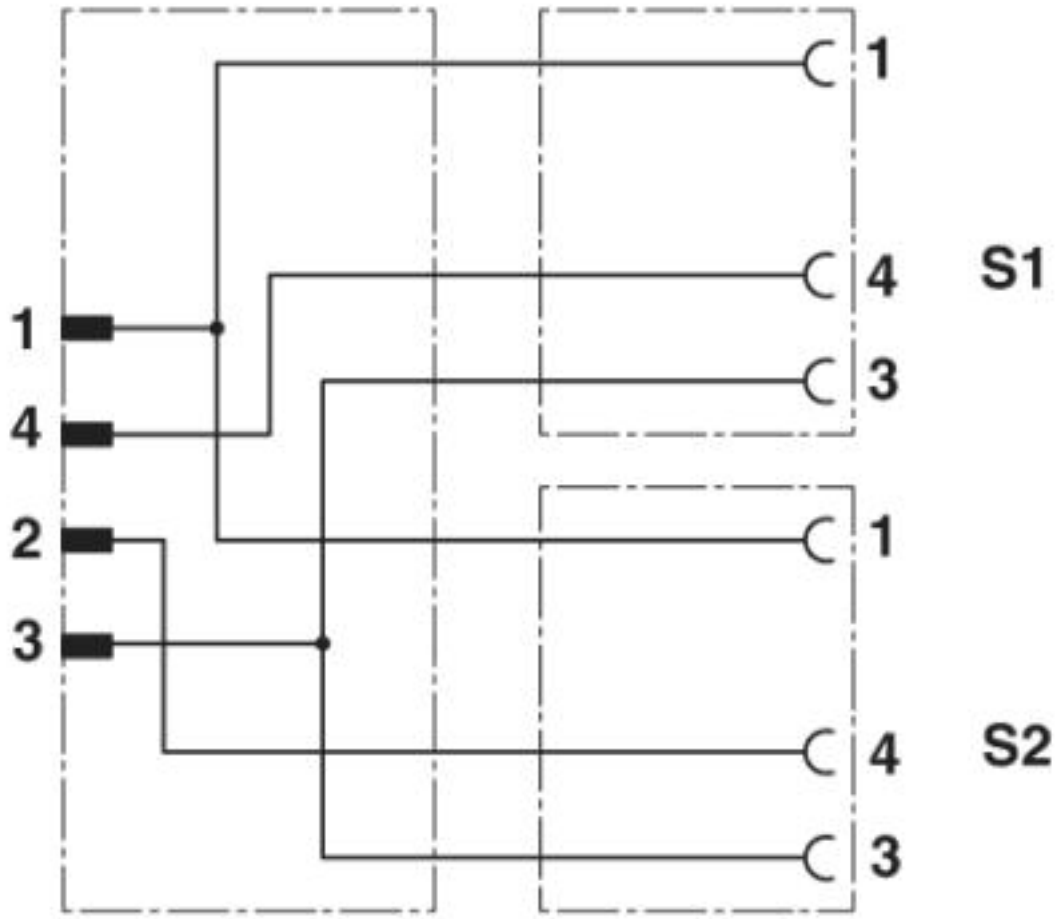
# Sensor/Actuator cable - SAC-3P-M8Y/2X3,0-PUR/M 8FS - 1458693

Dimensioned drawing




Socket M8 x 1, straight

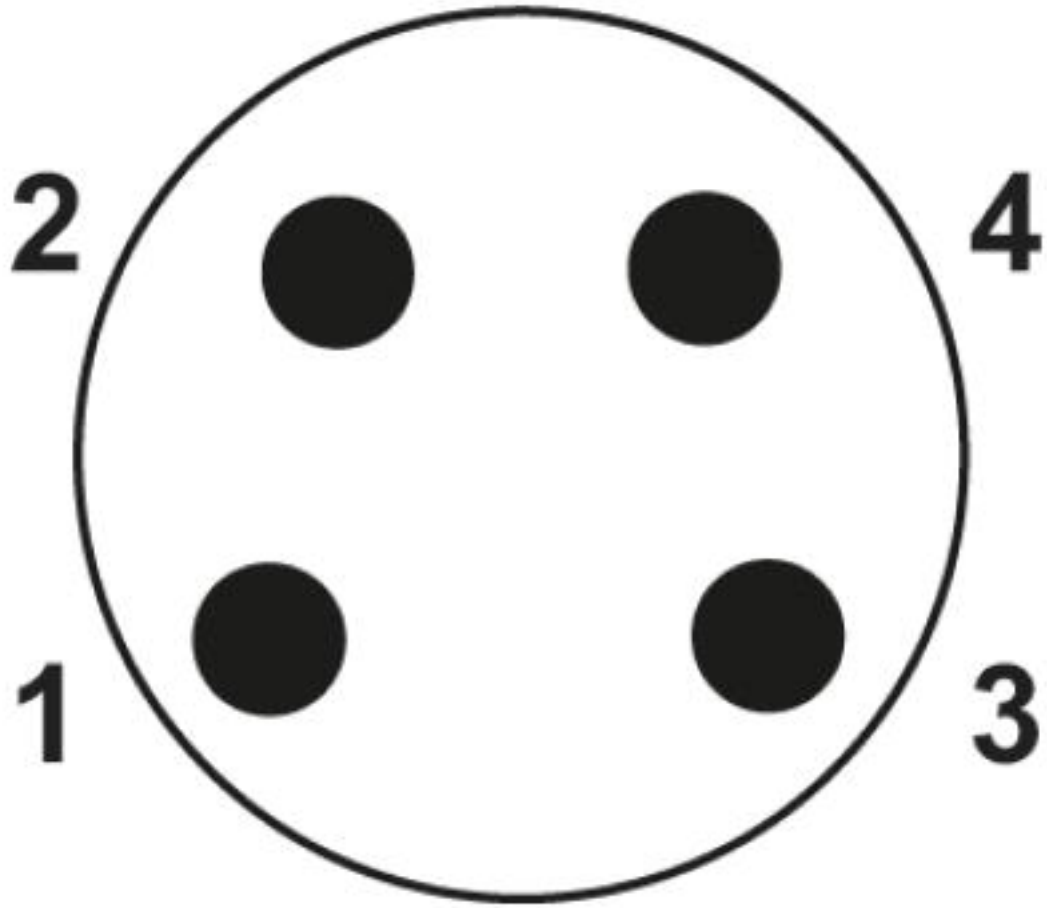
Circuit diagram




Contact assignment of the M8 plugs and the M12 sockets

# Sensor/Actuator cable - SAC-3P-M8Y/2X3,0-PUR/M 8FS - 1458693

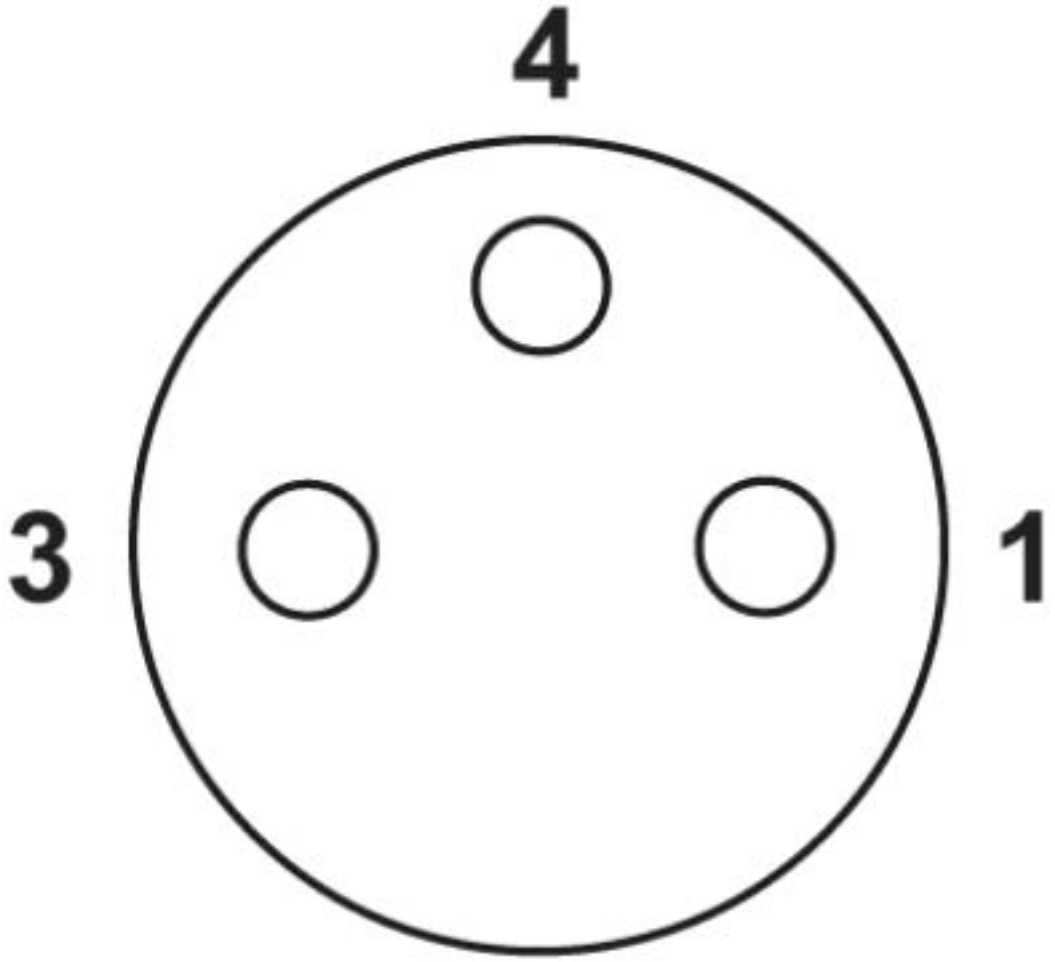
Schematic diagram




Pin assignment M8 plug, 4-pos., view male side

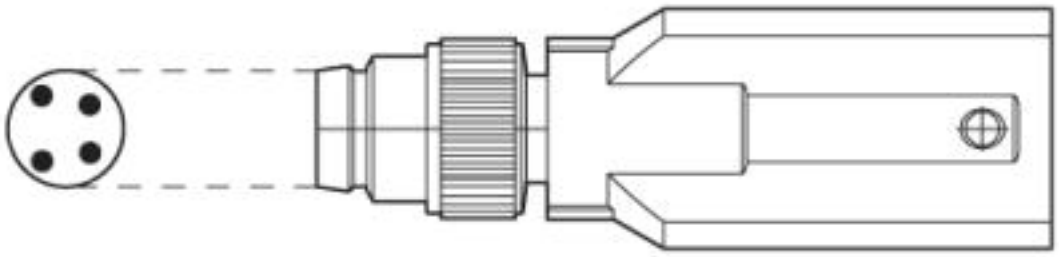
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Schematic diagram




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

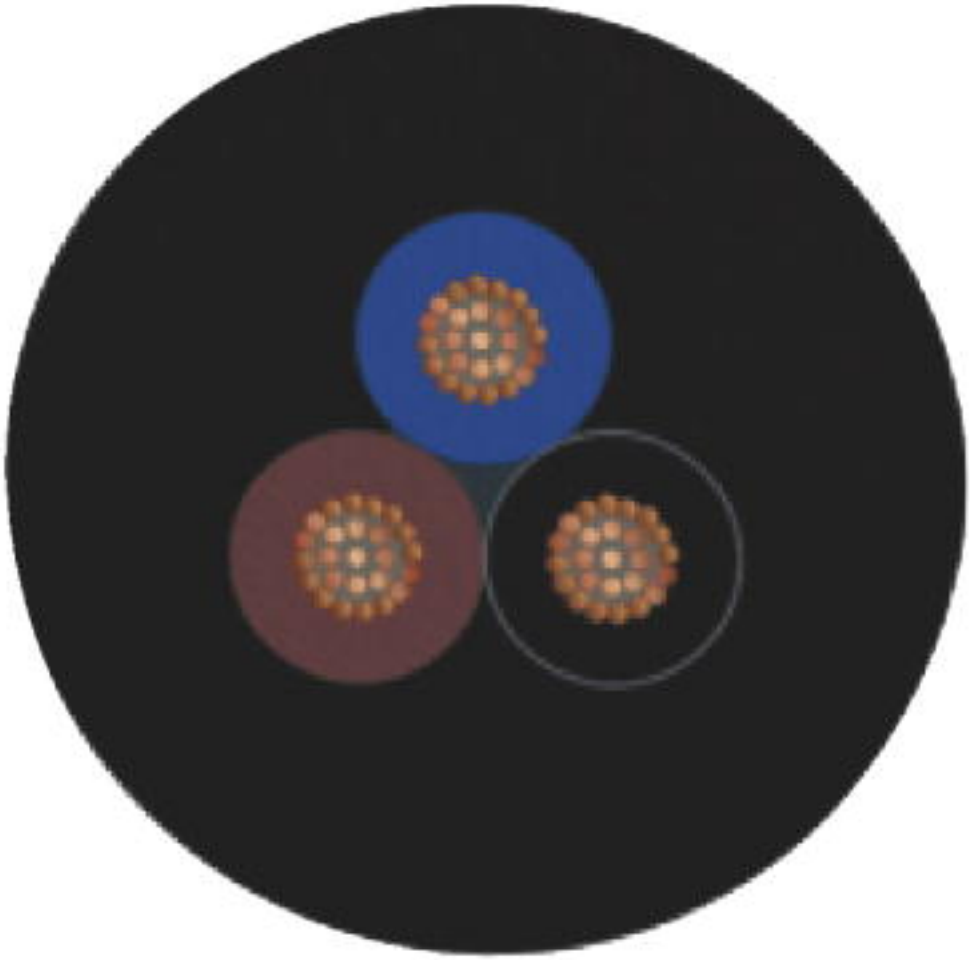
Schematic diagram



Alignment of the connector pin assignment

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Cable cross section



PUR halogen-free black [PUR]

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