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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

1404133

https://www.phoenixcontact.com/gb/products/1404133

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M8, on Socket straight M8, cable length: 0.3 m

## Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Save space – with high-pos. connectors
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial Data

| | |
|---|---|
| Item number | 1404133 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to Order (non-returnable) |
| Sales Key | BF1BNA |
| Product Key | BF1BNA |
| Catalog Page | Page 210 (C-2-2019) |
| GTIN | 4046356680448 |
| Weight per Piece (including packing) | 30 g |
| Weight per Piece (excluding packing) | 30 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

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## Technical Data

### Product properties

| | |
|---|---|
| Product type | Sensor/actuator cable |
| Number of positions | 8 |
| Application | Standard |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A - standard |

Insulation characteristics

| | |
|---|---|
| Degree of pollution | 3 |

### Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | HB |
| Sealing material | NBR |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Cable gland material | Zinc die-cast, nickel-plated |

### Electrical properties

| | |
|---|---|
| Contact resistance | ≤ 5 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 30 V AC |
| | 30 V DC |
| Nominal current $I_N$ | 1.5 A |
| Protective circuit | unwired |

### Connection data

Conductor connection

| | |
|---|---|
| Tightening torque | 0.2 NmM8 connectors |

### Connector

| | |
|---|---|
| Insertion/withdrawal cycles | ≥ 100 |

Header 1

| | |
|---|---|
| Head design | Plug |
| Head cable outlet | straight |
| Head thread type | M8 |

Head 2

| | |
|---|---|
| Head design | Socket |
| Head cable outlet | straight |

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| | |
|---|---|
| Head thread type | M8 |

## LED signaling

| | |
|---|---|
| Status display | No |
| Status display present | No |

## Cable / line

| | |
|---|---|
| Cable length | 0.3 m |
| Cable weight | 45 kg/km |
| UL AWM Style | 20549 |
| Number of positions | 8 |
| Shielded | yes |
| Cable type | PUR halogen-free black [PUR] |
| Conductor structure signal line | 18x 0.10 mm |
| AWG signal line | 26 |
| Conductor cross section | 8x 0.14 mm² (Signal line) |
| Wire diameter incl. insulation | 1 mm ±0.02 mm (Signal line) |
| External cable diameter | 5.9 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | black-gray RAL 7021 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | white, brown, green, yellow, gray, pink, blue, red |
| Thickness, insulation | ≥ 0.21 mm (Signal line) |
| | ≥ 0.38 mm (Outer cable sheath) |
| Overall twist | 8 wires around filler to the core |
| Length of twist, overall twist | 58 mm |
| Optical shield covering | 85 % |
| Max. conductor resistance | 139 Ω/km (at 20 °C) |
| Insulation resistance | 1 GΩ*km (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V AC |
| Test voltage | ≥ 3000 V AC (Spark test) |
| Test voltage Core/Shield | ≥ 2000 V AC (for 60 s) |
| Smallest bending radius, fixed installation | 29.5 mm |
| Smallest bending radius, movable installation | 59 mm |
| Max. bending cycles | 2000000 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | in accordance with DIN EN 50267-2-1 |
| Flame resistance | according to UL 758/1581 (horizontal) |
| | in accordance with UL 758/1581 FT2 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | hydrolysis and microbe resistant |
| | Resistant to salt water |
| | Low adhesion |

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| | |
|---|---|
| | abrasion-resistant |
| | 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) |

Cable structure

| | |
|---|---|
| Cable type | PUR halogen-free black |
| Outer sheath, material | PUR |
| External sheath, color | black RAL 9005 |

## Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |

## Standards and regulations

M8

| | |
|---|---|
| Standards/specifications | IEC 61076-2-104 |

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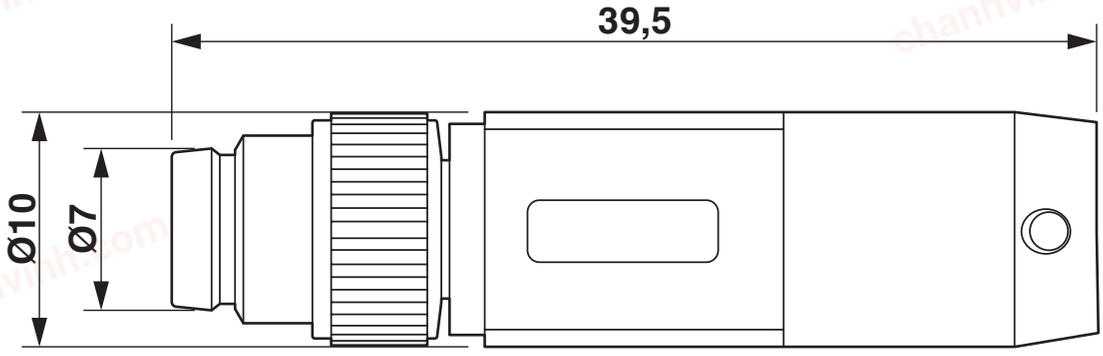
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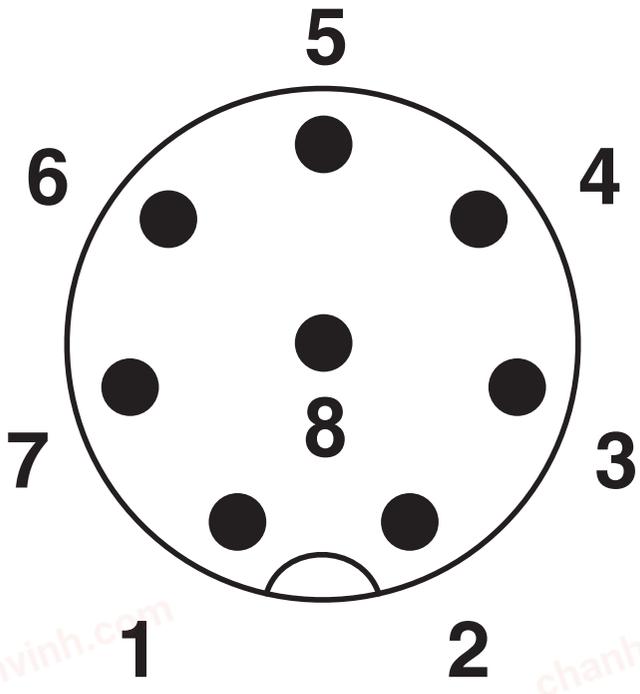
## Drawings

Dimensional drawing




M8 x 1 male plug, straight version

Schematic diagram




M8 plug pin assignment, 8-pos., view of pin side

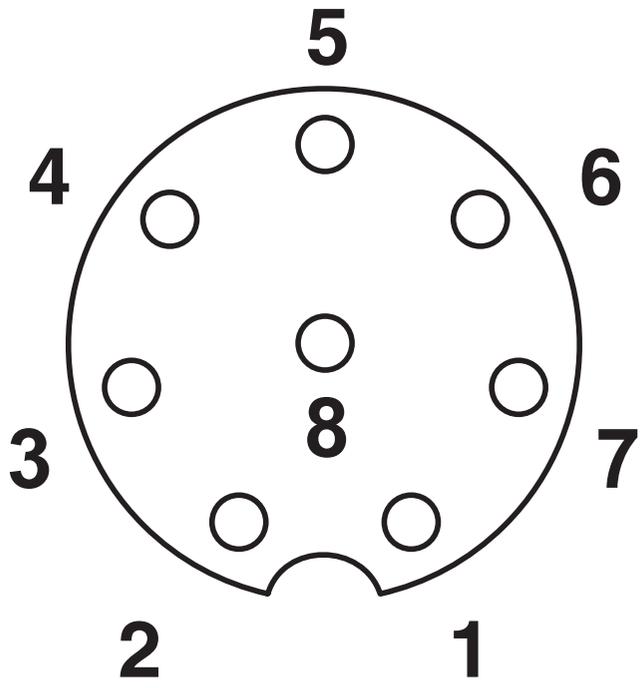
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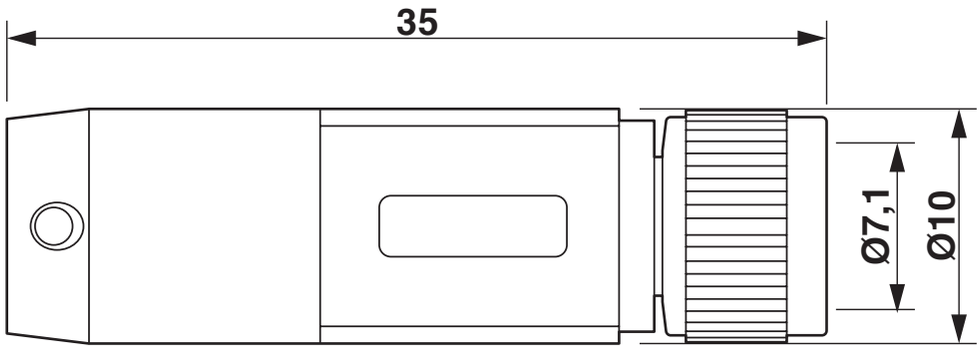
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Schematic diagram




Connector pin assignment of M8 socket, 8-pos., view of socket side

Dimensional drawing




Socket M8 x 1, straight

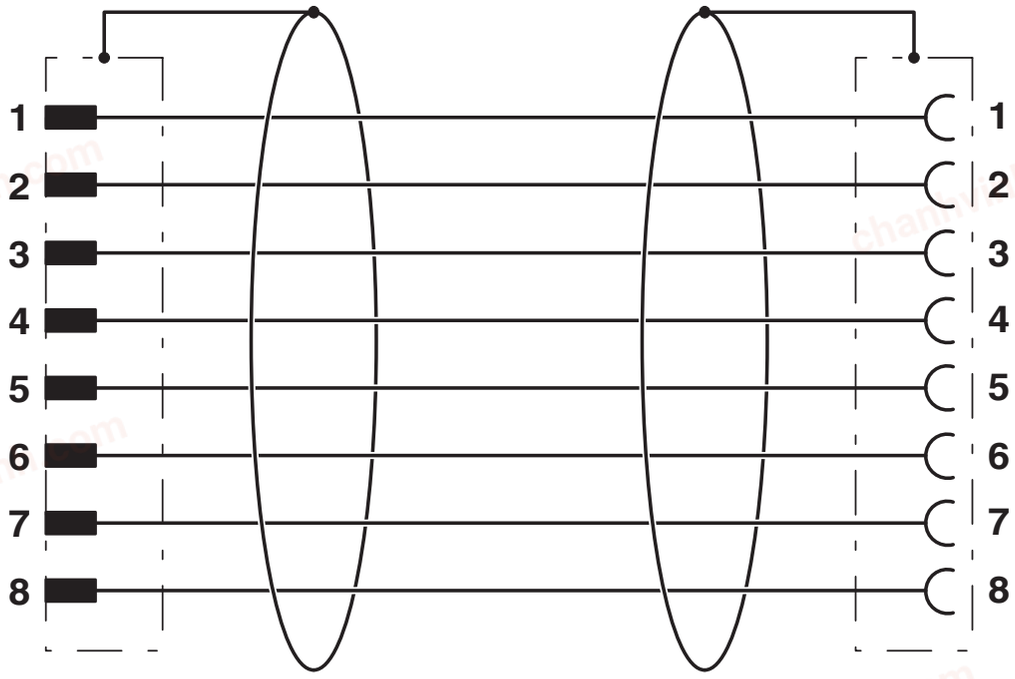
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Circuit diagram




Contact assignment of M8 plugs/sockets

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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

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## Approvals

**EAC**
Approval ID: RU C-DE.BL08.B.00286

**UL Listed**
Approval ID: FILE E 221474

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| | 30 V | 1.5 A | - | - |

**cUL Listed**
Approval ID: FILE E 221474

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| | 30 V | 1.5 A | - | - |

**EAC**
Approval ID: RU D-DE.HB35.B.00387

**cULus Listed**

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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-9.0 | 27060311 |
| ECLASS-10.0.1 | 27060311 |
| ECLASS-11.0 | 27060311 |

### ETIM

| | |
|---|---|
| ETIM 8.0 | EC001855 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 26121600 |

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## Environmental Product Compliance

| | |
|---|---|
| REACh SVHC | Lead 7439-92-1 |

| | |
|---|---|
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads” |

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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

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## Accessories

### Sealing cap

Sealing cap - PROT-M 8 FS-PA-CHAIN - 1430857

https://www.phoenixcontact.com/gb/products/1430857

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs



### Torque screwdriver

Torque screwdriver - TSD 02 SAC - 1208487

https://www.phoenixcontact.com/gb/products/1208487

Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors



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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

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## Tool

Tool - SAC BIT M8-D10 - 1208461

https://www.phoenixcontact.com/gb/products/1208461




Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive

## Insert label

Insert label - PABA WH/23 - 1013779

https://www.phoenixcontact.com/gb/products/1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

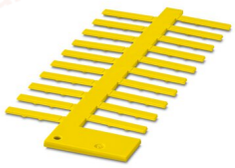
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## Insert label

Insert label - PABA YE/23 - 1013782

https://www.phoenixcontact.com/gb/products/1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

## Marker pen

Marker pen - B-STIFT - 1051993

https://www.phoenixcontact.com/gb/products/1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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# Sensor/actuator cable - SAC-8P-M 8MS/ 0,3-PUR/M 8FS SH

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## Screw plug

Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860

https://www.phoenixcontact.com/gb/products/1430860

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets



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