# SAC-3P-M 8MS/10,0-PVC - Sensor/actuator cable

1447280

https://www.phoenixcontact.com/us/products/1447280

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Sensor/actuator cable, 3-position, PVC, black RAL 9005, Plug straight M8, coding: A, on free cable end, cable length: 10 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components

## Commercial data

| | |
|---|---|
| Item number | 1447280 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF01 |
| Product key | BF1BBA |
| Catalog page | Page 190 (C-2-2019) |
| GTIN | 4046356673242 |
| Weight per piece (including packing) | 253.2 g |
| Weight per piece (excluding packing) | 243.5 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Sensor/actuator cable |
| Application | Standard |
| Number of positions | 3 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | A |

## Material specifications

| | |
|---|---|
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Material for screw connection | Zinc die-cast, nickel-plated |

## Electrical properties

| | |
|---|---|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 48 V AC |
| | 60 V DC |
| Nominal current $I_N$ | 4 A |

## Mechanical properties

Mechanical data

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

## Signaling

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

## Connector

Connection 1

| | |
|---|---|
| Type | Plug straight M8 |
| Number of positions | 3 |
| Coding type | A |

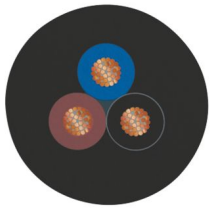
Connection 2

| | |
|---|---|
| Type | free cable end |

## Cable/line

| | |
|---|---|
| Cable length | 10 m |

PVC black [PVC]

| | |
|---|---|
| Dimensional drawing |  |
| Cable weight | 29 kg/km |
| Number of positions | 3 |
| Shielded | no |
| Cable type | PVC black [PVC] |
| Conductor structure signal line | 14x 0.15 mm |
| AWG signal line | 24 |
| Conductor cross section | 3x 0.25 mm² (Signal line) |
| Wire diameter incl. insulation | 1.17 mm ±0.05 mm |
| External cable diameter | 4.20 mm ±0.15 mm |
| Outer sheath, material | PVC |
| External sheath, color | black RAL 9005 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PVC |
| Single wire, color | brown, blue, black |
| Thickness, insulation | ≥ 0.23 mm (Core insulation) |
| Thickness, outer sheath | ≥ 0.76 mm |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | max. 79 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 100 MΩ*km (at 20 °C) |
| Nominal voltage, cable | ≥ 300 V |
| Test voltage | ≤ 3000 V |
| Smallest bending radius, fixed installation | 13 mm |
| Flame resistance | As per UL-Style 2464 |
| Resistance to oil | EN 60811-2-1 |
| Ambient temperature (operation) | -25 °C ... 80 °C (cable, fixed installation) |
| | -10 °C ... 80 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

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

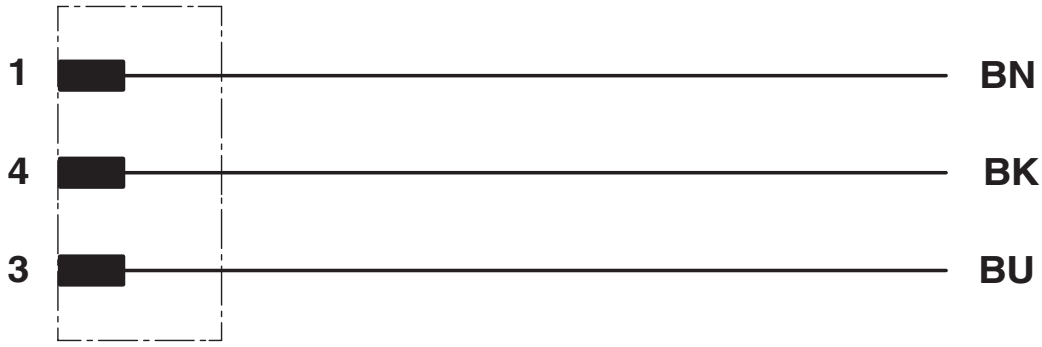
## Standards and regulations

M8

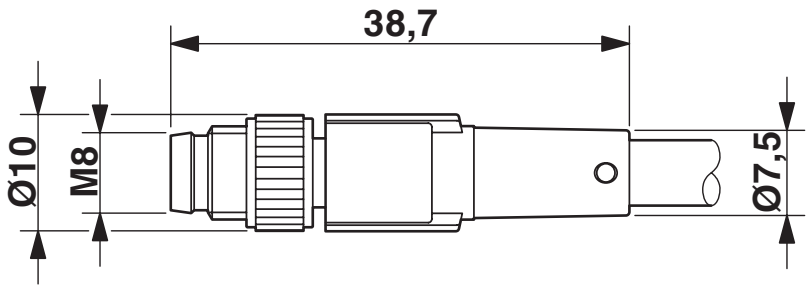
| | |
|---|---|
| Standard designation | M8 connector |
| Standards/specifications | IEC 61076-2-104 |

## Drawings

Circuit diagram

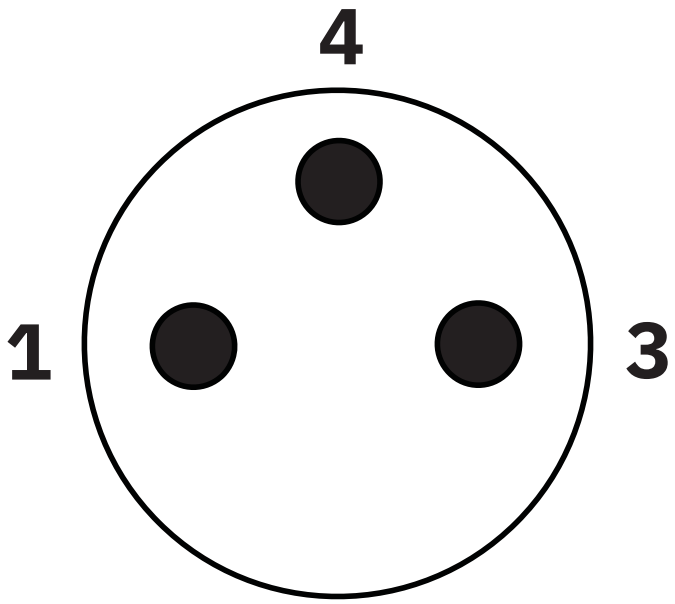



Dimensional drawing




M8 x 1 male plug, straight version

Schematic diagram




Pin assignment M8 plug, 3-pos., view male side

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1447280

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

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| | 60 V | 4 A | - | - |

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

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| | 60 V | 4 A | - | - |

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

**cULus Listed**

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC001855 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 5fa572e6-8ef9-47d3-91ca-e11b6495feb2 |

## Accessories

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

1430857

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

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

### UCT-WMT (23X4) - Conductor marker

0801453

https://www.phoenixcontact.com/us/products/0801453

Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 30

## UC-WMT (23X4) - Conductor marker

0819411

https://www.phoenixcontact.com/us/products/0819411

Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 24

## US-WMT (23X4) - Cable marker

0828769

https://www.phoenixcontact.com/us/products/0828769

Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 56

## WMTW (23X4)R - Cable marker

0831004

https://www.phoenixcontact.com/us/products/0831004

Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 3000

## WP-CTA POM 13,0 BK - Protective hose adapter

1422884

https://www.phoenixcontact.com/us/products/1422884

Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

## WP-PA HF 13,0 BK - Protective hose

3240681

https://www.phoenixcontact.com/us/products/3240681

Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

## WP-PA HF-HB 13,0 BK - Protective hose

3240839

https://www.phoenixcontact.com/us/products/3240839

Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

## B-STIFT - Marker pen

1051993

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

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

## CUTFOX-S VDE - Diagonal cutter

1212207

https://www.phoenixcontact.com/us/products/1212207

Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

## WIREFOX SAC-1 - Stripping tool

1212757

https://www.phoenixcontact.com/us/products/1212757

Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

## WIREFOX SAC - Stripping tool

1212623

https://www.phoenixcontact.com/us/products/1212623

Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

## WIREFOX 10 - Stripping tool

1212150

https://www.phoenixcontact.com/us/products/1212150

Stripping tool, for cables and conductors from 0.02 - 10 $mm^2$, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 $mm^2$ stranded/1.5 $mm^2$ solid, replaceable stripping blade

## TSD 02 SAC - Torque screwdriver

1208487

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

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

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## SAC BIT M8-D10 - Tool

1208461

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

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

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