

https://www.phoenixcontact.com/us/products/1500198

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Sensor/actuator cable, 3-position halogen-free, Plug straight M8, coding: A, connected with unwired, on free cable end, cable length: 1 m

Your advantages

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

Commercial data

| Item number | 1500198 | |
|--------------------------------------|---------------|--|
| Packing unit | 1 pc | |
| Minimum order quantity | 1 pc | |
| Sales key | BF01 | |
| Product key | BF1BBA | |
| GTIN | 4017918584832 | |
| Weight per piece (including packing) | 24.8 g | |
| Weight per piece (excluding packing) | 23 g | |
| Customs tariff number | 85444290 | |
| Country of origin | DE | |

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Technical data

Product properties

| Product type | Sensor/actuator cable | |
|----------------------|-----------------------|--|
| Number of positions | 3 | |
| Application | Standard | |
| 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

| Contact resistance | ≤ 5 mΩ |
|--------------------------------|----------|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 48 V AC |
| | 60 V DC |
| Nominal current I _N | 4 A |
| Protective circuit | unwired |

Mechanical properties

| | Mechanical data | | |
|----|-----------------------------|-------|--|
| | Insertion/withdrawal cycles | ≥ 100 | |
| Si | gnaling | | |
| | Status display | No | |
| | Status display present | No | |

Connection data

| Conductor connection | |
|----------------------|------------------------|
| Tightening torque | 0.2 Nm (M8 connectors) |

Connector

Connection 1

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

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| Number of positions | 3 | | |
|---|--|--|--|
| Connection 2 | | | |
| Туре | free cable end | | |
| i šhe | | | |
| able/line | | | |
| Cable length | 1 m | | |
| PUR halogen-free black [PUR] | | | |
| Dimensional drawing | | | |
| | | | |
| Cable weight | 18 kg/km | | |
| UL AWM Style | 20549 / 10493 (80°C/300 V) | | |
| Number of positions | 3 | | |
| Shielded | no | | |
| Cable type | PUR halogen-free black [PUR] | | |
| Conductor structure signal line | 32x 0.10 mm | | |
| AWG signal line | 24 3x 0.25 mm ² (Signal line) 1.17 mm ±0.02 mm 3.6 mm ±0.15 mm | | |
| Conductor cross section | | | |
| Wire diameter incl. insulation | | | |
| External cable diameter | | | |
| Outer sheath, material | PUR | | |
| External sheath, color | black-gray RAL 7021 | | |
| Conductor material | Bare Cu litz wires | | |
| Material wire insulation | PP | | |
| Single wire, color | brown, blue, black | | |
| Thickness, insulation | ≥ 0.21 mm (Core insulation) | | |
| Thickness, outer sheath | approx. 0.5 mm | | |
| Overall twist | 3 wires, twisted | | |
| Length of twist, overall twist | 40 mm | | |
| Max. conductor resistance | ≤ 78 Ω/km (at 20 °C) | | |
| Insulation resistance | ≥ 100 GΩ*km (at 20 °C) | | |
| Nominal voltage, cable | ≤ 300 V | | |
| Test voltage | ≥ 3000 V | | |
| Smallest bending radius, fixed installation | 18 mm | | |
| Smallest bending radius, movable installation | 36 mm | | |
| Max. bending cycles | 1000000 | | |
| Halogen-free | in accordance with DIN VDE 0472 part 815 | | |
| Flame resistance | in accordance with UL 758/1581 FT2 | | |



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| | DIN EN 60332-2-2 (20 s) |
|---------------------------------|---|
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | hydrolysis and microbe resistant |
| | Highly resistant to acids, alkaline solutions and solvents |
| | Resistant to salt water |
| | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -25 °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) | |

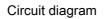
Standards and regulations

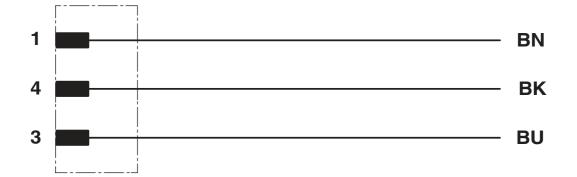
| M8 | |
|--------------------------|-----------------|
| Standard designation | M8 connector |
| Standards/specifications | IEC 61076-2-104 |

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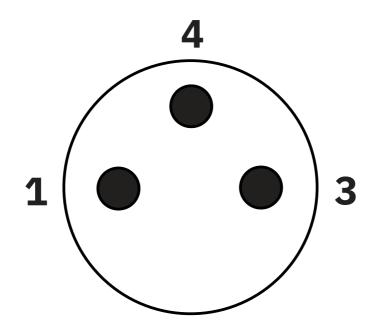
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Drawings





Schematic diagram



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

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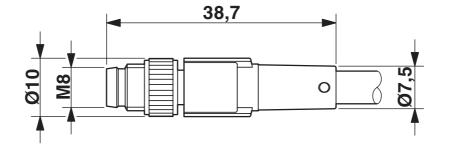




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Dimensional drawing



M8 x 1 male plug, straight version



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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1500198

| EAC | EAC Approval ID: RU C-DE.BL08.B.00286 | | | | |
|----------|---|--------------------------------|--------------------------------|-------------------|-------------------------------|
| Q | 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 | - | - |
| <u>.</u> | CUL Listed Approval ID: FILE E 221474 | 4 | | | |
| | | Nominal voltage U _N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| | | 60 V | 4 A | - | - |
| | | | | | |
| EAC | EAC-RoHS Approval ID: RU D-DE.HB3 | 35.B.00387 | | | |
| | | | | | |

cULus Listed



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Classifications

ECLASS

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



PABA WH/23 - Insert label

1013779 https://www.phoenixcontact.com/us/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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PABA YE/23 - Insert label

1013782

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

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 $\rm mm$

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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

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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 \emptyset 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 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

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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

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

3240839

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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

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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