

1197212

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Distributor box, application: Standard, connection method: M8 socket Metal, number of slots: 4, number of positions: 3, coding: A, slot assignment: single, status display: Yes, PNP; master cable connection: Fixed connection 180°, PUR/PVC, cable length: 10 m, shielding: no

### Your advantages

- · Safety in the field, thanks to molded housing and high degree of protection
- · Convenient: increased machine availability thanks to quick and easy diagnostics

#### Commercial data

| Item number                          | 1197212       |
|--------------------------------------|---------------|
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF40          |
| Product key                          | BF3BCA        |
| GTIN                                 | 4063151256807 |
| Weight per piece (including packing) | 797 g         |
| Weight per piece (excluding packing) | 797 g         |
| Customs tariff number                | 85444290      |
| Country of origin                    | DE            |



1197212

https://www.phoenixcontact.com/us/products/1197212

## Technical data

#### Notes

| Assembly note       | NOTE: Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties. |
|---------------------|---|
| Note on application | Unused slots are to be sealed off prior to commissioning. Suitable sealing elements are to be found under "Accessories".  |

### Product properties

| Distributor box |
|-----------------|
| Standard        |
| 3               |
| 4               |
| A               |
| yes             |
|                 |

#### Data management status

| Article revision | 01 |
|------------------|----|

### System properties

### Local diagnostics

| Monitored function     | Supply voltage |
|------------------------|----------------|
| Optical representation | Green LED      |

### Electrical properties

| Max. operating voltage U <sub>max</sub> | 30 V DC                       |
|---|-------------------------------|
| Local diagnostics                       | Supply voltage Green LED      |
|   | Status display I/O Yellow LED |
| Nominal voltage U <sub>N</sub>          | 24 V DC                       |
| Rated current, total                    | 6 A                           |
| Max. current carrying capacity per path | 2 A                           |
| Current carrying capacity per slot      | 2 A                           |

### Connection data

#### Conductor connection

| Sensor/actuator connection system            | M8 socket      |
|--|----------------|
| Tightening torque slot sensor/actuator cable | 0.2 Nm         |
| Pin assignment                               |                |
| Slot/position = Wire color or connection     | 1 / 4 (A) = WH |
|  |                |
|  | 2 / 4 (A) = GN |



1197212

https://www.phoenixcontact.com/us/products/1197212

|  | 4 / 4 (A) = GY        |
|--|-----------------------|
|  | 1-4 / 1 (+ 24 V) = BN |
|  | 1-4 / 3 (0 V) = BU    |

## Signaling

| Status display present | Yes |
|------------------------|-----|
|------------------------|-----|

#### **Dimensions**

| Dimensional drawing | 85,5<br>24,3<br>57<br>04,2<br>04,2<br>04,2<br>04,2<br>04,2 |
|---------------------|--|
| Width               | 30 mm  |
| Height              | 20 mm  |
| Length              | 85.5 mm  |

### Material specifications

| Material Threaded sleeve  | Cu alloy |
|---------------------------|----------|
| Material Housing          | PBT      |
| Material Molding compound | PUR      |
| Seal material O-ring      | FKM      |
| Contact material          | CuZn     |
| Contact surface material  | Ni/Au    |
| Contact carrier material  | PBT      |

#### Cable/line

### PUR/PVC black [PUR]

Dimensional drawing



| Cable weight        | 71.7 kg/km |
|---------------------|------------|
| UL AWM Style        | 20549      |
| Number of positions | 6          |



1197212

https://www.phoenixcontact.com/us/products/1197212

| Shielded                                      | no   |
|---|--|
| Cable type                                    | PUR/PVC black [PUR]  |
| Conductor structure signal line               | 19x 0.15 mm  |
| AWG signal line                               | 22   |
| Conductor cross section                       | 4x 0.34 mm² (Signal line)                                  |
|   | 2x 0.75 mm² (power line)                                   |
| Wire diameter incl. insulation                | 1.3 mm ±0.1 mm (Signal line)                               |
|   | 1.8 mm ±0.1 mm (power line)                                |
| External cable diameter                       | 6.80 mm ±0.2 mm  |
| Outer sheath, material                        | PUR  |
| External sheath, color                        | black RAL 9005   |
| Conductor material                            | Bare Cu litz wires   |
| Material wire insulation                      | PVC  |
| Single wire, color                            | brown, blue, white, green, yellow, gray                    |
| Inner sheath thickness                        | ≥ 0.15 mm  |
| Thickness, outer sheath                       | ≥ 0.38 mm  |
| Overall twist                                 | Wires twisted in layers                                    |
| Nominal voltage, cable                        | 300 V  |
| Test voltage                                  | 2000 V   |
| Minimum bending radius, fixed installation    | 7.5 x D  |
| Minimum bending radius, flexible installation | 10 x D   |
| Smallest bending radius, fixed installation   | 51 mm  |
| Smallest bending radius, movable installation | 68 mm  |
| Max. bending cycles                           | 1500000  |
| Bending radius                                | 68 mm  |
| Traversing path                               | 2 m  |
| Traversing rate                               | 2 m/s  |
| Flame resistance                              | DIN EN 50265   |
| Resistance to oil                             | according to VDE 0472 Part 803                             |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents |
| Special properties                            | Silicone-free  |
| Ambient temperature (operation)               | -40 °C 90 °C (cable, fixed installation)                   |
|   | -5 °C 80 °C (Cable, flexible installation)                 |
|   | 80 °C (in acc. with UL)                                    |

### Environmental and real-life conditions

#### Ambient conditions

| Degree of protection            | IP67         |
|---------------------------------|--------------|
| Ambient temperature (operation) | -25 °C 80 °C |

## Standards and regulations

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

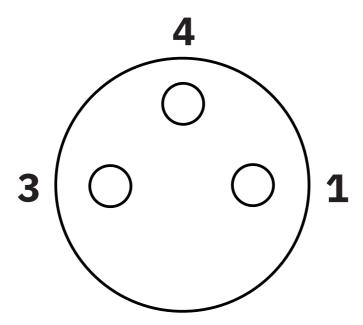


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## Drawings

Schematic diagram



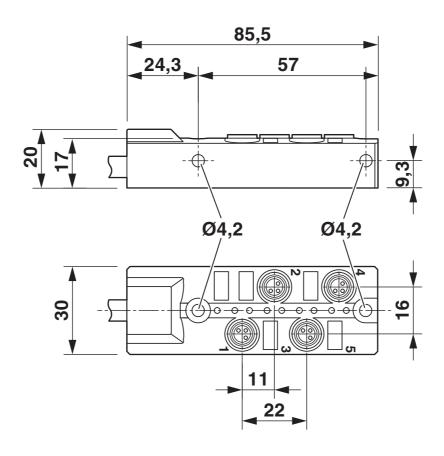
M8 slot, socket, 3-pos.



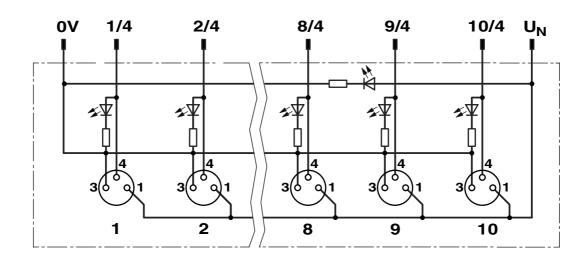
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## Dimensional drawing



### Circuit diagram





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## **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1197212

| <b>71</b> | UL Recognized Approval ID: FILE E 1189 | 976                            |                                |                   |                               |
|-----------|--|--------------------------------|--------------------------------|-------------------|-------------------------------|
|           |  | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|           |  | 24 V                           | -                              | -                 | -                             |

| .91 | cUL Recognized Approval ID: FILE E 118976 |                       |                                |                   |                               |
|-----|---|-----------------------|--------------------------------|-------------------|-------------------------------|
|     |   | Nominal voltage $U_N$ | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|     |   | 24 V                  | -                              | -                 | -                             |

cULus Recognized



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## Classifications

UNSPSC 21.0

### **ECLASS**

|        | ECLASS-11.0 | 27440108 |  |
|--------|-------------|----------|--|
|        | ECLASS-12.0 | 27440108 |  |
|        | ECLASS-13.0 | 27440108 |  |
| ETIM   |             |          |  |
|        | ETIM 9.0    | EC002585 |  |
| UNSPSC |             |          |  |

31251500



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## Environmental product compliance

| EU RoHS                                 |  |  |  |  |
|---|--|--|--|--|
| Fulfills EU RoHS substance requirements | Yes, No exemptions                       |  |  |  |
| China RoHS                              |  |  |  |  |
| Environment friendly use period (EFUP)  | EFUP-E                                   |  |  |  |
|   | No hazardous substances above the limits |  |  |  |
| EU REACH SVHC                           |  |  |  |  |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%               |  |  |  |



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#### Accessories

### UCT-TM 6 - Marker for terminal blocks

0828736

https://www.phoenixcontact.com/us/products/0828736



Marker for terminal blocks, 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: snapped, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

### PROT-M8 - Screw plug

1682540

https://www.phoenixcontact.com/us/products/1682540



An M8 screw plug for the unoccupied M8 sockets of the sensor/actuator cable, boxes and flush-type connectors



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### WIREFOX-D 40 - Stripping tool

1212161

https://www.phoenixcontact.com/us/products/1212161



**Stripping tool,** for stripping cables of 4.5 mm - 40 mm-Ø, insulation thickness of up to 4.5 mm, pivoting blade for round, lengthwise, and spiral cuts

### WIREFOX-D 11 - Stripping tool

1212160

https://www.phoenixcontact.com/us/products/1212160



Stripping tool, for stripping multicore signal, control and fiberglass wires of Ø 2.5 - 11 mm. Insulation thickness up to 1 mm



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### WIREFOX 2,5 - Stripping tool

1212368

https://www.phoenixcontact.com/us/products/1212368



Stripping tool, for conductors and cables with a conductor cross section from 0. 08 to 2.5 mm, self-adjusting, stripping length adjustable up to 15 mm, cutting capacity up to 6 mm² stranded/1.5 mm² solid

### 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

#### SACC BIT M8-D12 - Tool

1208474

https://www.phoenixcontact.com/us/products/1208474



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 12 mm, for 4 mm hexagonal drive

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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com