# SACB- 8/3-L-M16-M8 HD - Distributor box

1166980

https://www.phoenixcontact.com/us/products/1166980

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Distributor box, application: Standard, connection method: M8 socket Metal, number of slots: 8, number of positions: 3, coding: A, slot assignment: single, status display: Yes, PNP; master cable connection: M16 plug connection 90°, 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 | 1166980 |
|---|---|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF40 |
| Product key | BF3BCB |
| GTIN | 4063151184087 |
| Weight per piece (including packing) | 140 g |
| Weight per piece (excluding packing) | 140 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

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## 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

| | |
|---|---|
| Product type | Distributor box |
| Application | Standard |
| Number of positions | 3 |
| Number of slots | 8 |
| Coding | A |
| LED | yes |

#### Data management status

| | |
|---|---|
| Article revision | 02 |

### System properties

#### Local diagnostics

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

### Electrical properties

| | |
|---|---|
| Max. operating voltage $U_{max}$ | 30 V DC |
| Local diagnostics | Supply voltage per module Green LED |
| | Status display I/O Yellow LED |
| Nominal voltage $U_N$ | 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 |
| Tightening torque - master cable - plug connection | 1.5 Nm |
| Tightening torque of mounting screw for fixing the housing | 0.8 Nm |

#### Pin assignment
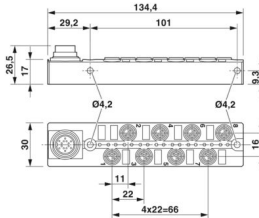
| | |
|---|---|
| | 1 / 4 (A) = P |

| Slot/position = Wire color or connection | 2 / 4 (A) = J |
| --- | --- |
| | 3 / 4 (A) = T |
| | 4 / 4 (A) = S |
| | 5 / 4 (A) = G |
| | 6 / 4 (A) = R |
| | 7 / 4 (A) = E |
| | 8 / 4 (A) = O |
| | 1-8 / 1 (+ 24 V) = A+M |
| | 1-8 / 3 (0 V) = L+U |

## Signaling

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

## Dimensions

| Dimensional drawing |  |
| --- | --- |
| Width | 30 mm |
| Height | 27 mm |
| Length | 134.4 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 |
| Material of contact, master cable side | CU alloy |

## Cable/line

| Connection method | M16 plug connection |
| --- | --- |

## Environmental and real-life conditions

### Ambient conditions

| Degree of protection | IP67 |
| --- | --- |
| Ambient temperature (operation) | -20 °C ... 80 °C |

## Standards and regulations

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

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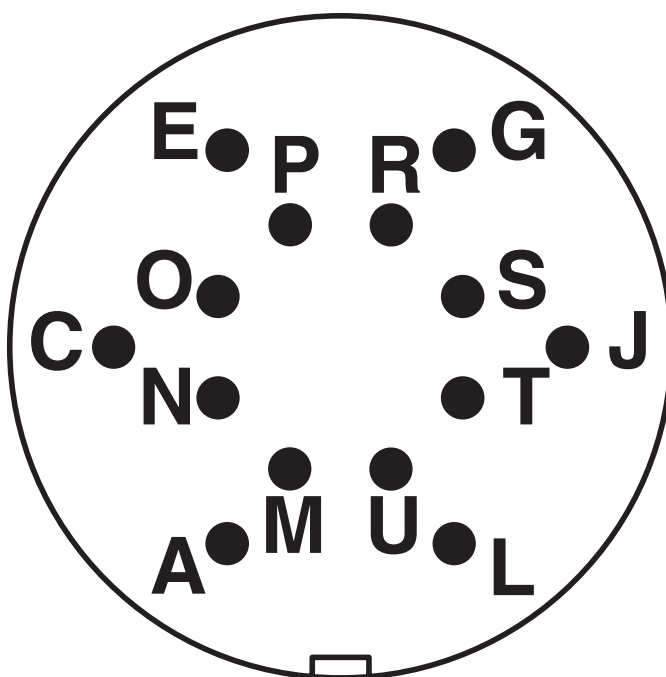https://www.phoenixcontact.com/us/products/1166980

## Drawings

Schematic diagram
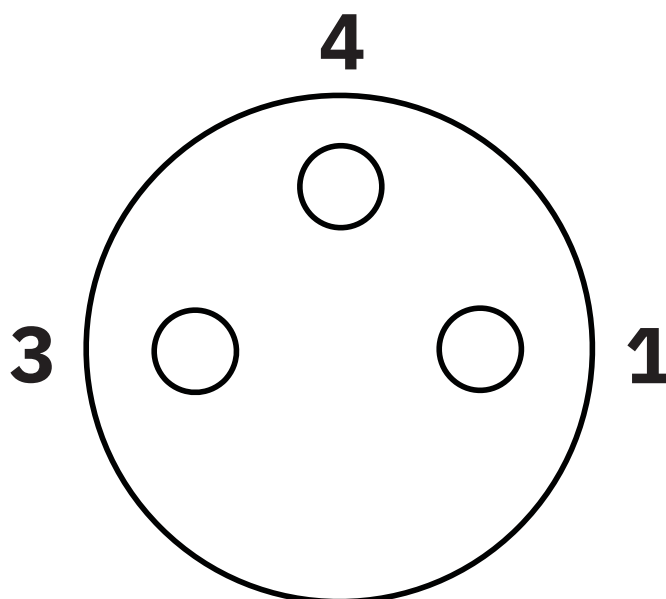


M8 slot, socket, 3-pos.

Schematic diagram



M16 plug connection pin, 14-pos.
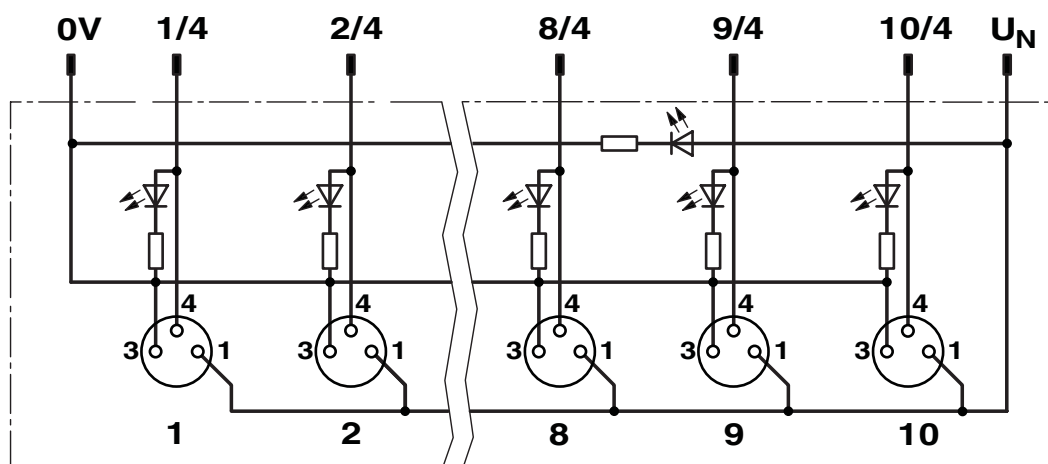
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## Dimensional drawing
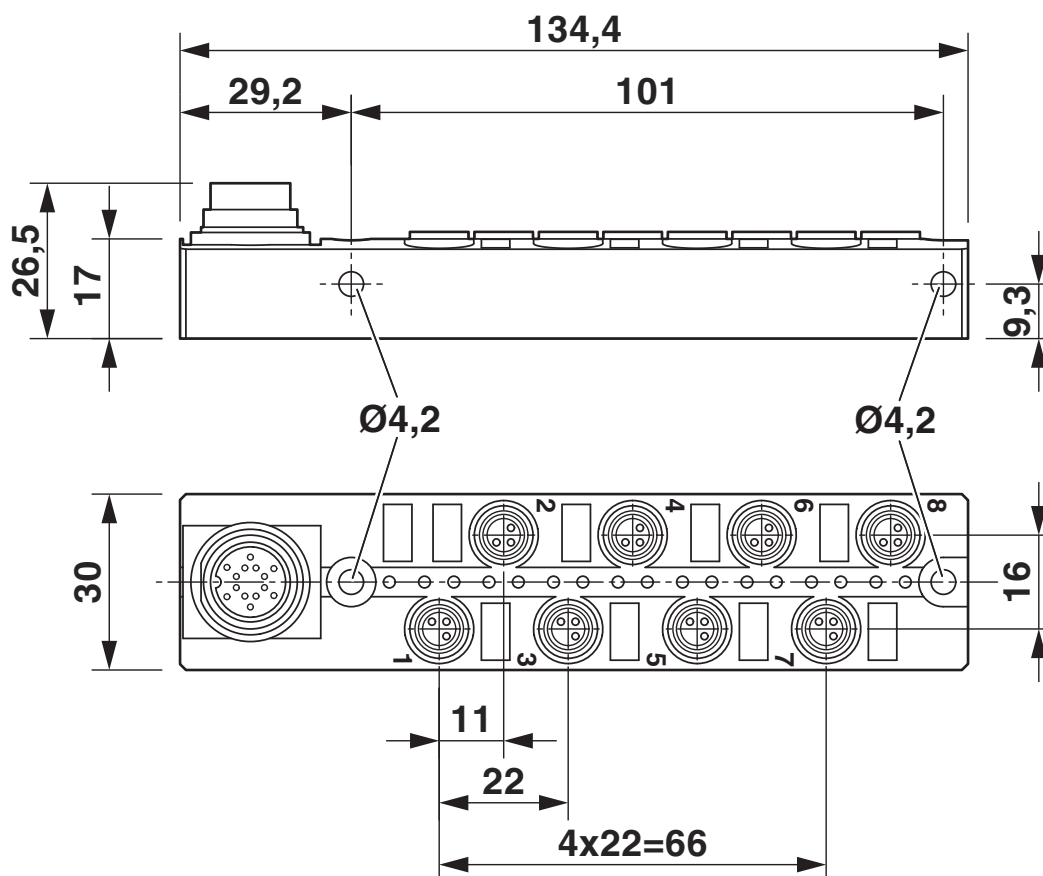


## Circuit diagram

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27440111 |
| ECLASS-12.0 | 27440111 |
| ECLASS-13.0 | 27440111 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC003558 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 31251500 |

## 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 | 2f1b2e52-53c5-4eb9-879d-ba295faa0e22 |

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## Accessories

### SAC-12P- 5,0-PUR/M16FR - Master cable

1693720

https://www.phoenixcontact.com/us/products/1693720

Master cable, application: Sensor/actuator box, number of slots: 8, number of positions: 12, slot assignment: single, status display: No; master cable connection: M16 plug connection, PUR/PVC, cable length: 5 m, shielding: no, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0. 1 %) item no.: 1260747

### SAC-12P-10,0-PUR/M16FR - Master cable

1693733

https://www.phoenixcontact.com/us/products/1693733

Master cable, application: Sensor/actuator box, number of slots: 8, number of positions: 12, slot assignment: single, status display: No; master cable connection: M16 plug connection, PUR/PVC, cable length: 10 m, shielding: no, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0. 1 %) item no.: 1260746

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## 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

## SACC-M16FS-14CON-M - Connector

1500554

https://www.phoenixcontact.com/us/products/1500554

M16 socket, 14-pos., with solder connection, freely configurable, straight, for a 6.0 mm conductor diameter ... 8.0 mm

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## SACC-M16FR-14CON-M - Connector

1500253

https://www.phoenixcontact.com/us/products/1500253

M16 socket, 14-pos., with solder connection, freely configurable, angled, for a 6.
0 mm conductor diameter ... 8.0 mm

## 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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## 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

## 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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## 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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