

# SACB- 8/3-L-M16-M8 HD - Sensor/actuator box



1166980

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

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Sensor/actuator 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

General	<b>NOTE:</b> 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.
General	Unused slots are to be sealed off prior to commissioning. Suitable sealing elements are to be found under "Accessories".

### Product properties

Product type	Distributor boxes with M8 to M12 slots
Number of positions	3
Application	Standard
Number of slots	8
Coding	A
LED	yes

### Material specifications

Material	Cu alloy
	PBT
	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

### Dimensions

Dimensional drawing	
Width	30 mm
Height	27 mm
Length	134.4 mm

### Connection data

Conductor connection	
Connection method	M16 plug connection
Tightening torque slot sensor/actuator cable	0.2 Nm

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Tightening torque - master cable - plug connection	1.5 Nm
Tightening torque of mounting screw for fixing the housing	0.8 Nm

## Pin assignment

Slot/position = Wire color or connection	1 / 4 (A) = P
	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
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## 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

## Cable/line

Sensor/actuator connection system	M8 socket
Connection method	M16 plug connection
Tightening torque - master cable - plug connection	1.5 Nm
Tightening torque of mounting screw for fixing the housing	0.8 Nm
Tightening torque slot sensor/actuator cable	0.2 Nm

## Standards and regulations

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

## Environmental and real-life conditions

### Ambient conditions

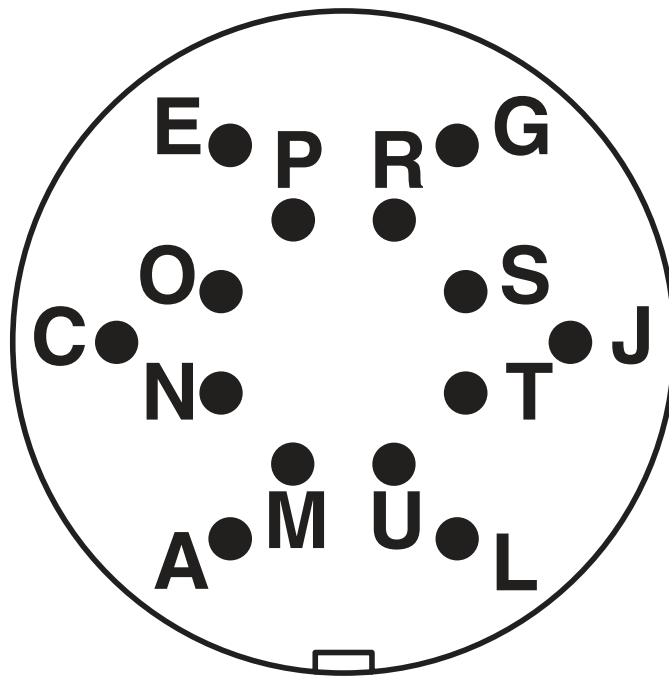
Degree of protection	IP67
Ambient temperature (operation)	-20 °C ... 80 °C

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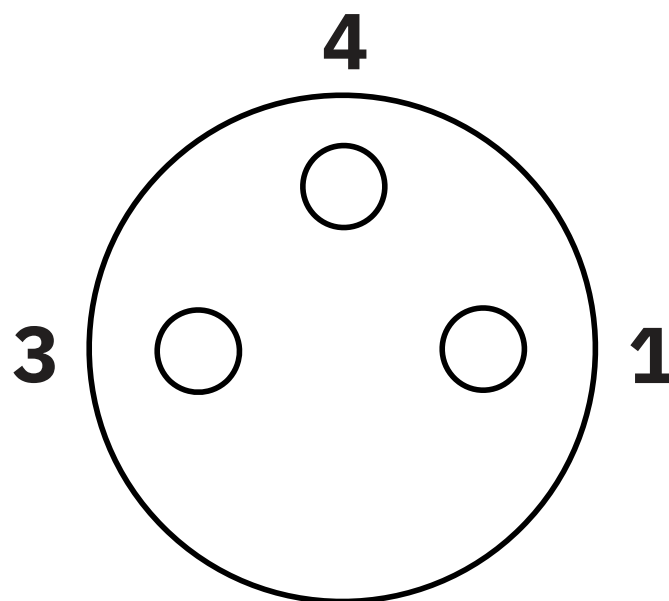
### Drawings

Schematic diagram



M16 plug connection pin, 14-pos.

Schematic diagram



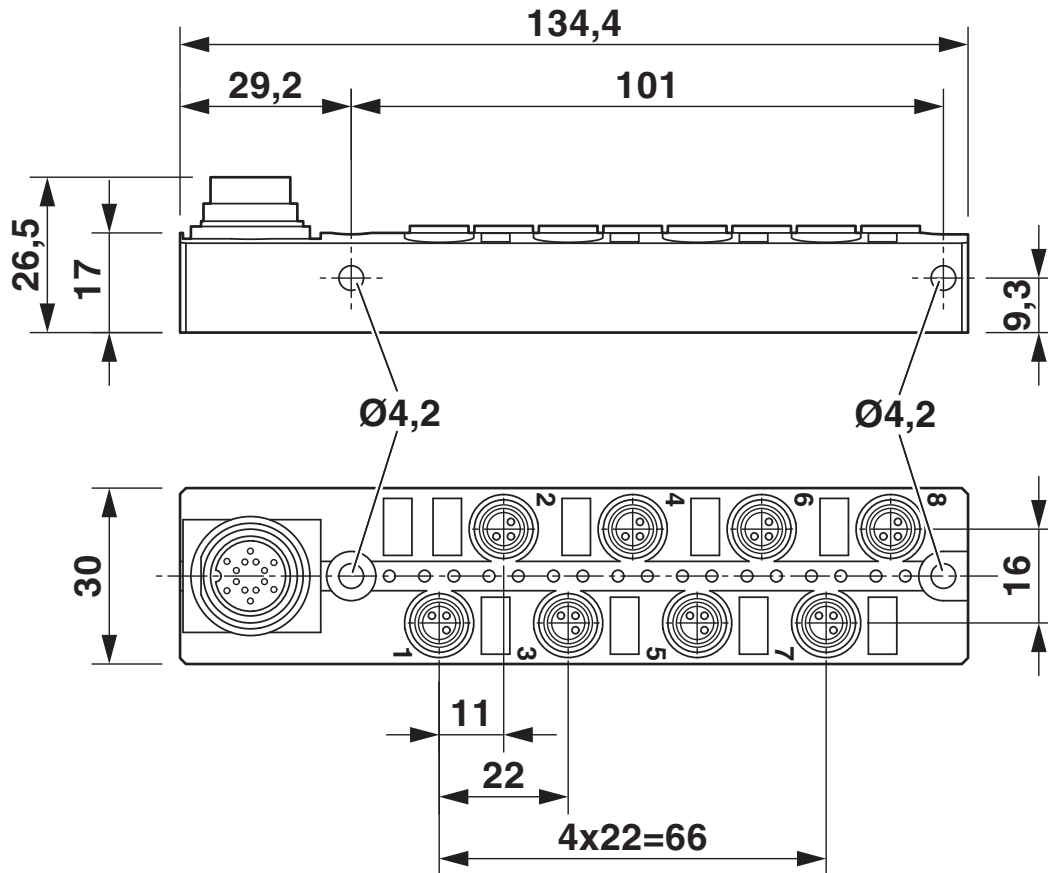
M8 slot, socket, 3-pos.

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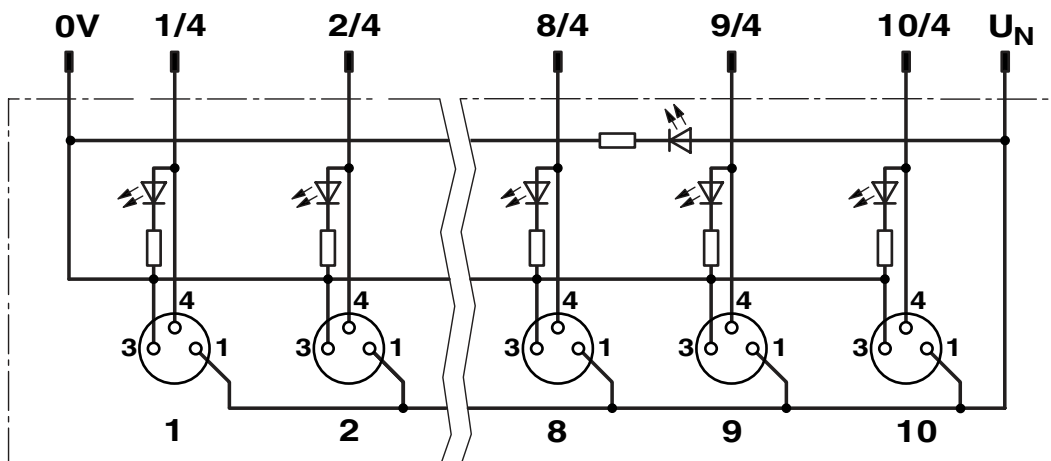
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Dimensional drawing



Circuit diagram



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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC003558
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### UNSPSC

UNSPSC 21.0	31251500
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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

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

1693720

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



Master cable, application: Sensor/actuator box, connection method: M8 socket Metal, 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

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

1693733

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



Master cable, application: Sensor/actuator box, connection method: M8 socket, 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

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## 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



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## 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

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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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## 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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