

# Sensor/actuator box - SACB-8/16-SC SCO P



1452974

<https://www.phoenixcontact.com/pc/products/1452974>

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Sensor/actuator box, application: Standard, connection method: M12-SPEEDCON-socket Plastic, number of slots: 8, number of positions: 5, coding: A - standard, slot assignment: Double, status display: No, Universal; master cable connection: Spring-cage connection 180°, shielding: no

## Your advantages

- Safety in the field, thanks to molded housing and high degree of protection
- Save space: distributor box with double occupancy for two sensors in one slot
- Save time, thanks to installation with SPEEDCON fast locking system
- Flexible: distributor box with connector hood for on-site assembly

## Commercial Data

Item number	1452974
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF3CBC
Catalog Page	Page 262 (C-2-2019)
GTIN	4046356553599
Weight per Piece (including packing)	224 g
Weight per Piece (excluding packing)	221.5 g
Customs tariff number	85366990
Country of origin	DE

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## Technical Data

### Notes

General	<p>When connecting the signal lines to the black PCB terminal blocks, please use a 0.4 x 2.0 mm screwdriver.</p> <p>The black PCB terminal blocks only require a minimal amount of operating force.</p> <p>Screwdriver: SZS 0,4X2,0 - 1205202</p> <p>Using larger screwdrivers or excessive force may damage the PCB terminal blocks.</p> <p>When using ferrules, the wires can be inserted straight into the PCB terminal blocks without opening the clamping area.</p>
Assembly instruction:	<p><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.</p>
Note on application	<p>Unused slots are to be sealed off prior to commissioning.</p> <p>Suitable sealing elements are to be found under "Accessories".</p>

### Product properties

Product type	Distributor boxes with M8 to M12 slots
Number of positions	5
Application	Standard
Number of slots	8
Coding	A - standard

### Material specifications

Color	anthracite
Flammability rating according to UL 94	V0
Sealing material	NBR (Connector hood)
Material of threaded sleeve	PBT
Contact material	Cu alloy
Contact surface material	gold-plated
Contact carrier material	PA
O-ring material	NBR
Material of the moulding mass	PUR
Housing material	PBT

### Dimensions

Dimensional drawing	<p>The drawing shows two views of the connector. The top view (left) shows a length of 148.6 mm, a width of 15.6 mm, and a height of 42.6 mm. The side view (right) shows a length of 107 mm, a width of 73 mm, and a height of 54 mm. A hole diameter of 4.5 mm is indicated.</p>
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Width	54 mm
Height	42 mm
Length	149 mm

## Connection data

### Pin assignment

Slot/position = Wire color or connection	1 / 4 (A) = WH
	1 / 2 (B) = GYPK
	2 / 4 (A) = GN
	2 / 2 (B) = RDBU
	3 / 4 (A) = YE
	3 / 2 (B) = WHGN
	4 / 4 (A) = GY
	4 / 2 (B) = BNGN
	5 / 4 (A) = PK
	5 / 2 (B) = WHYE
	6 / 4 (A) = RD
	6 / 2 (B) = YEBN
	7 / 4 (A) = BK
	7 / 2 (B) = WHGY
	8 / 4 (A) = VT
	8 / 2 (B) = GYBN
1-8 / 1 (+ 120 V) = BN	
1-8 / 3 (0 V) = BU	
1-8 / 5 (PE) = GNYE	

## LED signaling

Status display present	No
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## Electrical properties

Nominal voltage $U_N$	120 V AC
	120 V DC
Rated current, total	12 A
Max. current carrying capacity per path	2 A
Current carrying capacity per slot	4 A

## Cable / line

Sensor/actuator connection system	M12-SPEEDCON-socket
Connection method	Spring-cage connection
External cable diameter	7 mm ... 12 mm
Metric conductor cross section (Signal)	0.2 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Cross section AWG (Signal)	24 ... 20
Stripping length (signal)	6 mm
Metric conductor cross section (Power)	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

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Cross section AWG (Power)	24 ... 16
Stripping length (power)	10 mm
Stripping length for sheath	50 mm (Master cable)
Tightening torque, cover screw	1 Nm
Tightening torque of mounting screw for fixing the housing	0.5 Nm
Tightening torque slot sensor/actuator cable	0.4 Nm
Tightening torque, union nut	2.5 Nm

## Standards and regulations

Standards/specifications	IEC 61076-2-101
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## Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 80 °C

# Sensor/actuator box - SACB-8/16-SC SCO P

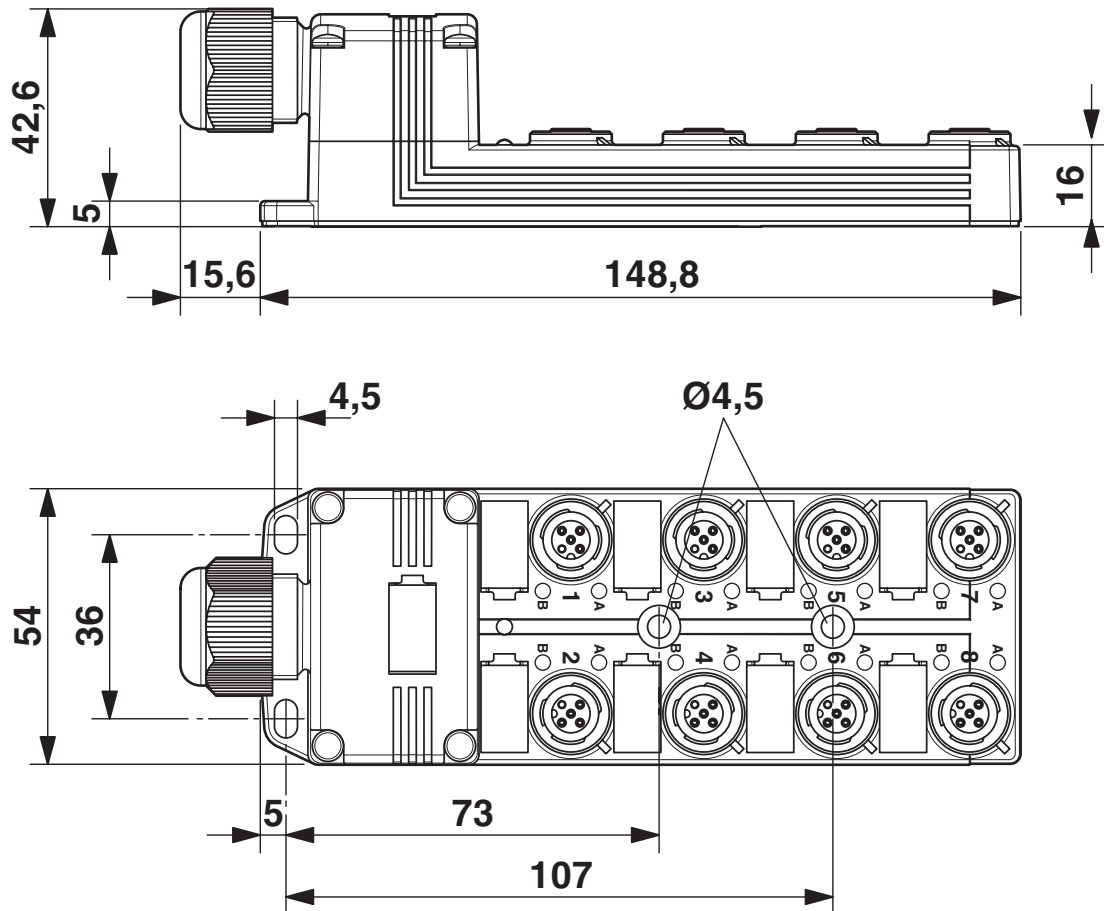


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## Drawings

Dimensional drawing



# Sensor/actuator box - SACB-8/16-SC SCO P

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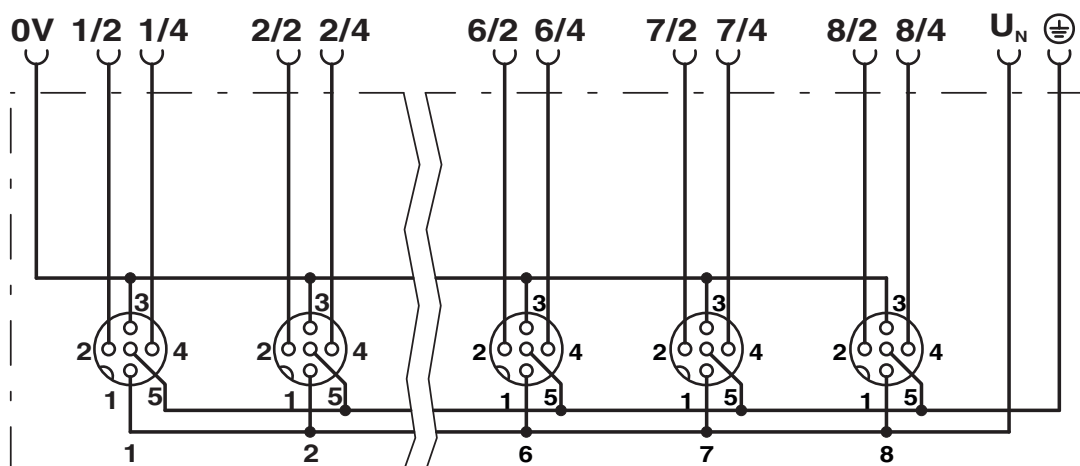
<https://www.phoenixcontact.com/pc/products/1452974>

Schematic diagram



M12 slot, socket, 5-pos.

Circuit diagram



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## Approvals

 <b>cUL Recognized</b> Approval ID: FILE E 118976				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
	120 V		-	-

 <b>UL Recognized</b> Approval ID: FILE E 118976				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
	120 V		-	-

 <b>EAC</b> Approval ID: RU C-DE.AI30.B.01102	
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 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00511	
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<b>cULus Recognized</b>	
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# Sensor/actuator box - SACB-8/16-SC SCO P



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## Classifications

### ECLASS

ECLASS-10.0.1	27440111
ECLASS-9.0	27440108
ECLASS-11.0	27440111

### ETIM

ETIM 8.0	EC003558
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### UNSPSC

UNSPSC 21.0	31251500
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Accessories

### Master cable ring

Master cable ring - SACB-16X0,5/ 3X1,0-50,0 PUR - 1503373

<https://www.phoenixcontact.com/pc/products/1503373>



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PP, 19-pos., 16 x 0.50 mm<sup>2</sup> and 3 x 1.00 mm<sup>2</sup>, length: 50 m

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### Master cable ring

Master cable ring - SACB-16X0,5/ 3X1,0-200,0 PUR - 1559893

<https://www.phoenixcontact.com/pc/products/1559893>



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PP, 19-pos., 16 x 0.50 mm<sup>2</sup> and 3 x 1.00 mm<sup>2</sup>, length: 200 m on drum

# Sensor/actuator box - SACB-8/16-SC SCO P



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## Master cable ring

Master cable ring - SACB-16X0,5/ 3X1,0-50,0 VPUR - 1430938

<https://www.phoenixcontact.com/pc/products/1430938>



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PP, 19-pos., 16 x 0.50 mm<sup>2</sup> and 3 x 1.00 mm<sup>2</sup>, length: 50 m

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## Screw plug

Screw plug - PROT-MS SCO - 1553129

<https://www.phoenixcontact.com/pc/products/1553129>



M12 screw plug with fast-locking system for unoccupied M12 female connectors of sensor/actuator cables, boxes, and flush-type connectors

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## Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

<https://www.phoenixcontact.com/pc/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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## Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224

<https://www.phoenixcontact.com/pc/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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## Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

<https://www.phoenixcontact.com/pc/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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## Tool

Tool - SAC BIT M12-D15 - 1208432

<https://www.phoenixcontact.com/pc/products/1208432>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

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<https://www.phoenixcontact.com/pc/products/1452974>

## Tool

Tool - SACC BIT M12-D20 - 1208445

<https://www.phoenixcontact.com/pc/products/1208445>

Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive



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## Snap-in markers

Snap-in markers - UC-EM (17,5X9) - 0827490

<https://www.phoenixcontact.com/pc/products/0827490>

Snap-in markers, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID, BLUEMARK ID COLOR, BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, lettering field size: 17.5 x 9 mm, Number of individual labels: 20



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## Snap-in markers

Snap-in markers - UC-EM (17,5X9) CUS - 0828238

<https://www.phoenixcontact.com/pc/products/0828238>



Snap-in markers, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

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## Snap-in markers

Snap-in markers - UCT-EM (17,5X9) - 0801491

<https://www.phoenixcontact.com/pc/products/0801491>



Snap-in markers, 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, lettering field size: 17.5 x 9 mm, Number of individual labels: 24

# Sensor/actuator box - SACB-8/16-SC SCO P

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## Snap-in markers

Snap-in markers - UCT-EM (17,5X9) CUS - 0801575

<https://www.phoenixcontact.com/pc/products/0801575>

UniCard sheet, for labeling devices from other manufacturers, for overview table see download area, labeled according to customer specifications



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## Snap-in markers

Snap-in markers - UC-EM (17,5X9) YE - 0827494

<https://www.phoenixcontact.com/pc/products/0827494>

Snap-in markers, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, lettering field size: 17.5 x 9 mm, Number of individual labels: 20



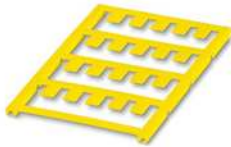
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## Snap-in markers

Snap-in markers - UC-EM (17,5X9) YE CUS - 0828239

<https://www.phoenixcontact.com/pc/products/0828239>



Snap-in markers, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

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## Snap-in markers

Snap-in markers - UCT-EM (17,5X9) YE - 0801492

<https://www.phoenixcontact.com/pc/products/0801492>



Snap-in markers, Sheet, yellow, 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, lettering field size: 17.5 x 9 mm, Number of individual labels: 24

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## Snap-in markers

Snap-in markers - UCT-EM (17,5X9) YE CUS - 0801576

<https://www.phoenixcontact.com/pc/products/0801576>

UniCard sheet, for labeling devices from other manufacturers, for overview table see download area, labeled according to customer specifications



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## Screwdriver

Screwdriver - SZK PZ2 VDE - 1206463

<https://www.phoenixcontact.com/pc/products/1206463>

Screwdriver, PZ crosshead, VDE insulated, size: PZ 2 x 100 mm, 2-component grip, with non-slip grip



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## Torque screwdriver

Torque screwdriver - TSD 25 SAC - 1212315

<https://www.phoenixcontact.com/pc/products/1212315>



Torque screwdriver, with preset torque of 2.5 Nm and 4 mm hexagonal drive for the pressure nut of the connector hood

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## Torque screwdriver

Torque screwdriver - TSD-M 3NM - 1212225

<https://www.phoenixcontact.com/pc/products/1212225>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 1.2 - 3 Nm

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## Tool

Tool - SAC BIT HOOD-W 24 - 1212486

<https://www.phoenixcontact.com/pc/products/1212486>

Nut for assembling pressure nuts with 24 mm wrench size, for 4 mm hexagonal drive



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## Screw insert

Screw insert - SF-BIT-PZ 2-50 - 1212592

<https://www.phoenixcontact.com/pc/products/1212592>

Screw bit, PZ crosshead, E6.3-1/4" drive, size: PZ 2 x 50 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173



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## Screwdriver

Screwdriver - SZS 0,4X2,0 - 1205202

<https://www.phoenixcontact.com/pc/products/1205202>



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

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## Ferrule

Ferrule - A 0,5 - 6 - 3200218

<https://www.phoenixcontact.com/pc/products/3200218>



Ferrule, length: 6 mm, color: silver

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## Ferrule

Ferrule - A 0,75-10 - 3200234

<https://www.phoenixcontact.com/pc/products/3200234>



Ferrule, length: 10 mm, color: silver

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## Ferrule

Ferrule - A 1 -10 - 3200250

<https://www.phoenixcontact.com/pc/products/3200250>



Ferrule, length: 10 mm, color: silver

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## Ferrule

Ferrule - A 1,5 -10 - 3200276

<https://www.phoenixcontact.com/pc/products/3200276>



Ferrule, length: 10 mm, color: silver

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## DIN rail adapter

DIN rail adapter - UTA 136 - 2853996

<https://www.phoenixcontact.com/pc/products/2853996>



Universal DIN rail adapter, for screwing on switchgear

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