

# SACB-6/ 6-L-SC SCO P - Distributor box



1453009

<https://www.phoenixcontact.com/pc/products/1453009>

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Distributor box, application: Standard, connection method: M12-SPEEDCON-socket Plastic, number of slots: 6, number of positions: 4, coding: A, slot assignment: single, status display: Yes, pnp; master cable connection: Spring-cage connection 180°, 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
- Save time, thanks to installation with SPEEDCON fast locking system
- Flexible: distributor box with connector hood for on-site assembly

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1453009             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product key                          | BF3CBC              |
| Catalog page                         | Page 262 (C-2-2019) |
| GTIN                                 | 4046356553629       |
| Weight per piece (including packing) | 182 g               |
| Weight per piece (excluding packing) | 185.3 g             |
| Customs tariff number                | 85366990            |
| Country of origin                    | DE                  |

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## Technical data

### Notes

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | When connecting the signal lines to the black PCB terminal blocks, please use a 0.4 x 2.0 mm screwdriver.<br>The black PCB terminal blocks only require a minimal amount of operating force.<br>Screwdriver: SZS 0,4X2,0 - 1205202<br>Using larger screwdrivers or excessive force may damage the PCB terminal blocks.<br>When using ferrules, the wires can be inserted straight into the PCB terminal blocks without opening the clamping area. |
| General | Item 1412059 SACB-6/12-L-PT SCO P is a version with the same connection cross section for signals and energy supply from 0.2 mm² to 1 mm². This sensor/actuator box with double slot assignment also features a master cable connection with Push-in connection terminal blocks.                                                                                                                                                                  |
| 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.<br>Suitable sealing elements are to be found under "Accessories".                                                                                                                                                                                                                                                                                                                       |

### Product properties

|                     |                 |
|---------------------|-----------------|
| Product type        | Distributor box |
| Application         | Standard        |
| Number of positions | 4               |
| Number of slots     | 6               |
| Coding              | A               |
| LED                 | yes             |

### System properties

#### Local diagnostics

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

### Electrical properties

|                                         |                               |
|-----------------------------------------|-------------------------------|
| Max. operating voltage $U_{max}$        | 30 V DC                       |
| Local diagnostics                       | Supply voltage Green LED      |
|                                         | Status display I/O Yellow LED |
| Nominal voltage $U_N$                   | 24 V DC                       |
| Rated current, total                    | 12 A                          |
| Max. current carrying capacity per path | 2 A                           |
| Current carrying capacity per slot      | 4 A                           |

### Connection data

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## Conductor connection

|                                                            |                                             |
|------------------------------------------------------------|---------------------------------------------|
| Sensor/actuator connection system                          | M12-SPEEDCON-socket                         |
| Conductor cross section Flexible signal line               | 0.2 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |
| Conductor cross section Flexible power supply              | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Connection cross section AWG Flexible signal line          | 24 ... 20                                   |
| Connection cross section AWG Flexible power supply         | 24 ... 16                                   |
| Stripping length Signal line                               | 6 mm                                        |
| Stripping length Power supply                              | 10 mm                                       |
| Stripping length of the sheath                             | 50 mm (Master cable)                        |
| Tightening torque, cover screw                             | 1 Nm                                        |
| Tightening torque slot sensor/actuator cable               | 0.4 Nm                                      |
| Tightening torque of mounting screw for fixing the housing | 0.5 Nm                                      |
| Tightening torque, union nut                               | 2.5 Nm                                      |

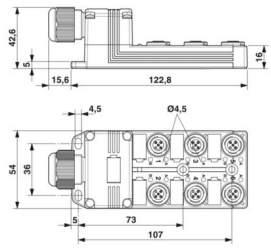
## Pin assignment

|                                          |                       |
|------------------------------------------|-----------------------|
| Slot/position = Wire color or connection | 1 / 4 (A) = WH        |
|                                          | 2 / 4 (A) = GN        |
|                                          | 3 / 4 (A) = YE        |
|                                          | 4 / 4 (A) = GY        |
|                                          | 5 / 4 (A) = PK        |
|                                          | 6 / 4 (A) = RD        |
|                                          | 1-6 / 1 (+ 24 V) = BN |
|                                          | 1-6 / 3 (0 V) = BU    |
|                                          | 1-6 / 5 (PE) = GNYE   |

## Signaling

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

## Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 54 mm                                                                                |
| Height              | 43 mm                                                                                |
| Length              | 123 mm                                                                               |

## Material specifications

|                          |     |
|--------------------------|-----|
| Material Threaded sleeve | PBT |
| Material Housing         | PBT |

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|                                        |             |
|----------------------------------------|-------------|
| Material Molding compound              | PUR         |
| Flammability rating according to UL 94 | V0          |
| Seal material O-ring                   | NBR         |
| Contact material                       | Cu alloy    |
| Contact surface material               | gold-plated |
| Contact carrier material               | PA          |

## Cable/line

|                             |                        |
|-----------------------------|------------------------|
| External cable diameter ( ) | 7 mm ... 12 mm         |
| Connection method           | Spring-cage connection |

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-101 |

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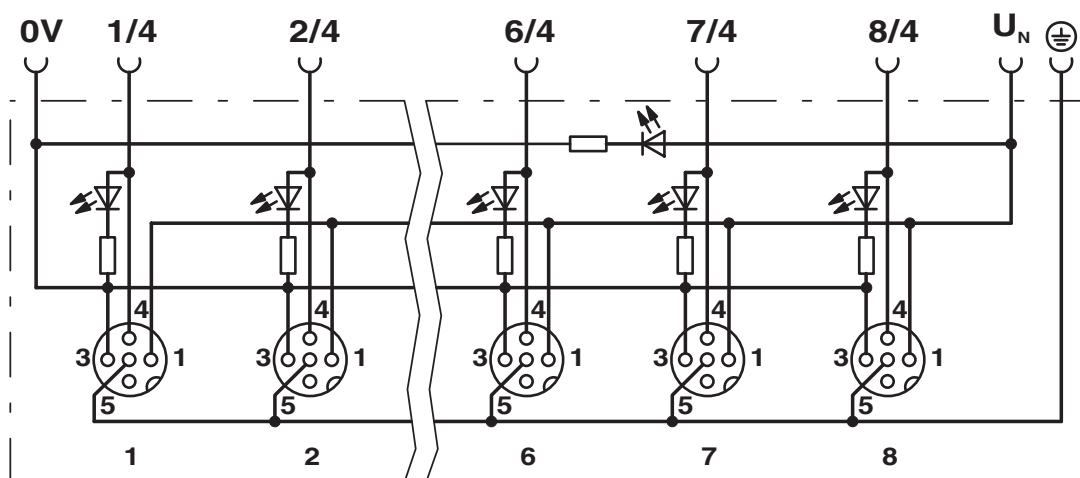
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## Drawings

Circuit diagram



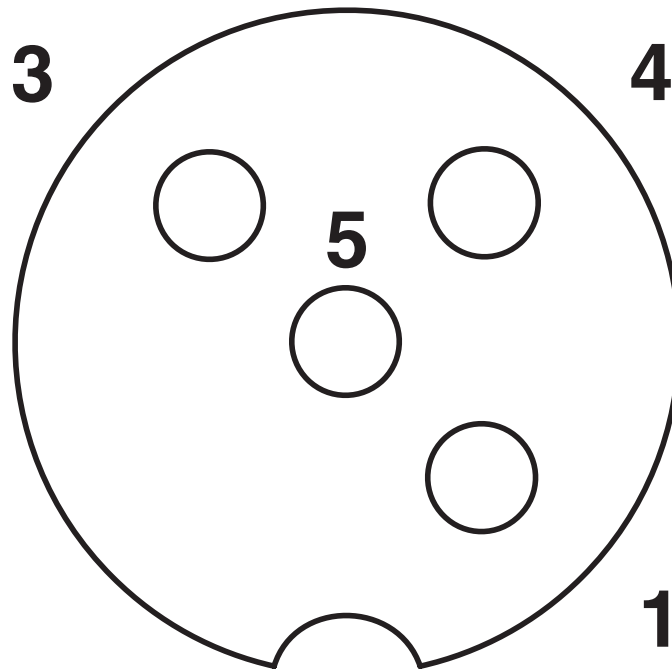
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Schematic diagram



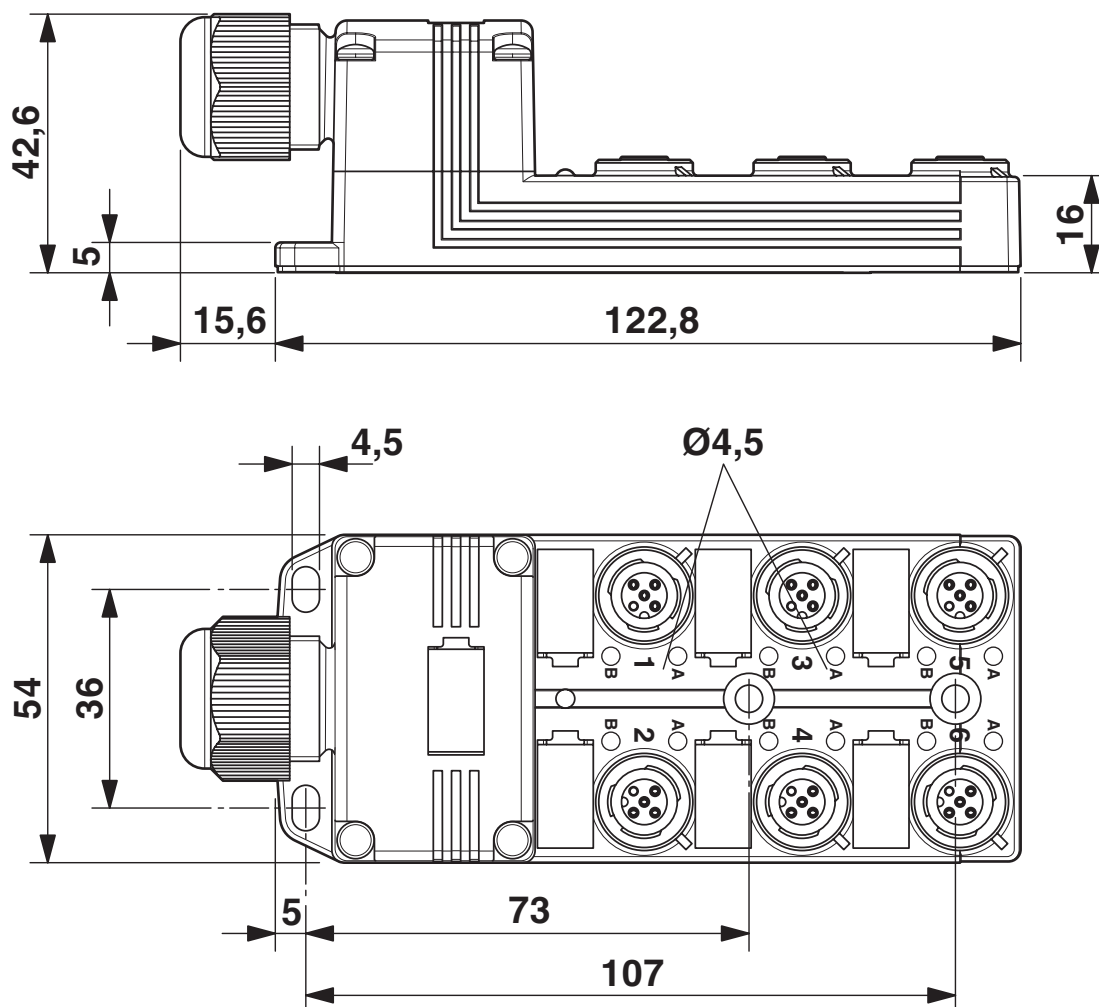
M12 slot, socket, 4-pos.

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Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1453009>

|                                                                                                                                       |                       |                       |                   |                             |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Recognized</b><br>Approval ID: FILE E 118976 |                       |                       |                   |                             |
|                                                                                                                                       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                       | 24 V                  | -                     | -                 | -                           |

|                                                                                                                                      |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>UL Recognized</b><br>Approval ID: FILE E 118976 |                       |                       |                   |                             |
|                                                                                                                                      | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Signal                                                                                                                               | -                     | 2 A                   | -                 | -                           |
|                                                                                                                                      | 24 V                  | 4 A                   | -                 | -                           |

|                         |  |  |  |  |
|-------------------------|--|--|--|--|
| <b>cULus Recognized</b> |  |  |  |  |
|-------------------------|--|--|--|--|



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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 |
|-------------|----------|

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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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