# SACB-6/ 6-L- 5,0PUR SCO P - Distributor box

1452631

https://www.phoenixcontact.com/us/products/1452631

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Distributor box, application: Standard, connection method: M12 socket Plastic, number of slots: 6, number of positions: 4, coding: A, slot assignment: single, status display: yes, PNP; master cable connection: Fixed connection 180°, PUR/PVC, cable length: 5 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
- Save time, thanks to installation with SPEEDCON fast locking system

## Commercial data

| | |
|---|---|
| Item number | 1452631 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF41 |
| Product key | AF3CBA |
| GTIN | 4046356553940 |
| Weight per piece (including packing) | 695 g |
| Weight per piece (excluding packing) | 674.9 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

# Technical data

## Notes

| | |
|---|---|
| Assembly note | NOTE: Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce 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 | 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

### Conductor connection

| | |
|---|---|
| Sensor/actuator connection system | M12 socket |
| Tightening torque slot sensor/actuator cable | 0.4 Nm |
| Tightening torque of mounting screw for fixing the housing | 0.5 Nm |

### Connection assignment

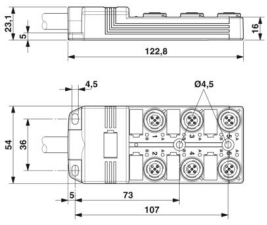
| | |
|---|---|
| Slot/position = Wire color or connection | 1 / 4 (A) = WH |
| | 2 / 4 (A) = GN |
| | 3 / 4 (A) = YE |
| | 4 / 4 (A) = GY |
| | 5 / 4 (A) = PK |

| | |
|---|---|
| | 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 | 23 mm |
| Length | 123 mm |

## Material specifications

| | |
|---|---|
| Material Threaded sleeve | PBT |
| Material Housing | PBT |
| Material Molding compound | PUR |
| Seal material | NBR |
| Contact material | Cu alloy |
| Contact surface material | gold-plated |
| Contact carrier material | PA |

## Cable/line

| | |
|---|---|
| Cable length | 5 m |

PUR/PVC black [PUR]

| | |
|---|---|
| Dimensional drawing |  |
| Cable weight | 96.6 kg/km |
| UL AWM Style | 20549 |
| Number of positions | 9 |

| | |
|---|---|
| Shielded | no |
| Cable type | PUR/PVC black [PUR] |
| Conductor structure signal line | 19x 0.15 mm |
| AWG signal line | 22 |
| Conductor structure, voltage supply | 42x 0.15 mm |
| AWG power supply | 18 |
| Conductor cross-section | 6x 0.34 mm² (Signal line) |
| | 3x 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 | 8.00 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, green/yellow, white, green, yellow, gray, pink, red |
| Thickness, insulation | ≥ 0.15 mm (Inner sheath) |
| | ≥ 0.38 mm (Outer cable sheath) |
| 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 | 60 mm |
| Smallest bending radius, movable installation | 80 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 1500000, Bending radius: 80 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

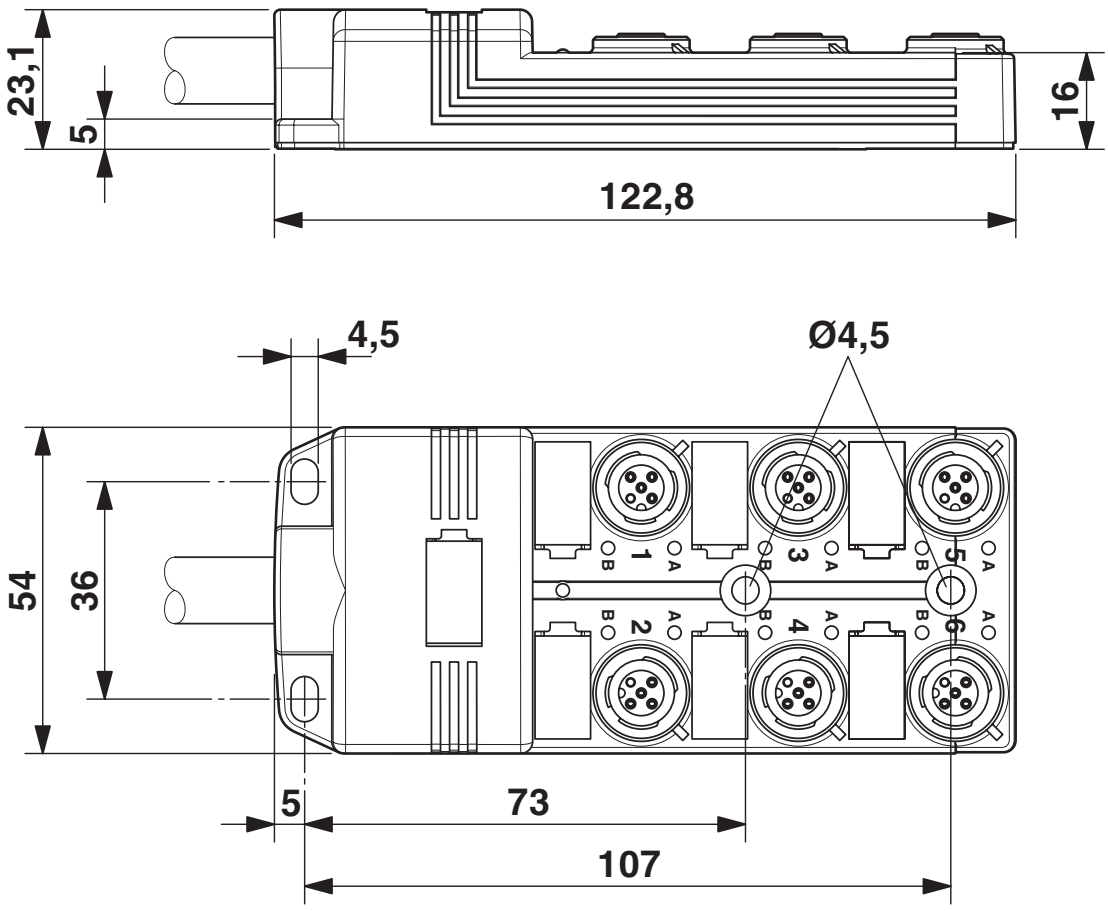
| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -25 °C ... 80 °C |

## Standards and regulations

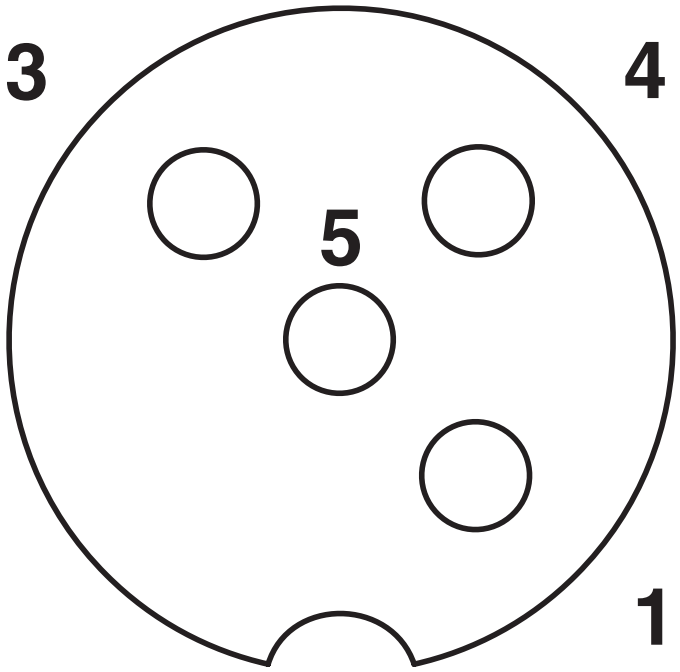
| | |
|---|---|
| Standard designation | M12 connector |
| Standards/specifications | IEC 61076-2-101 |

## Drawings

Dimensional drawing

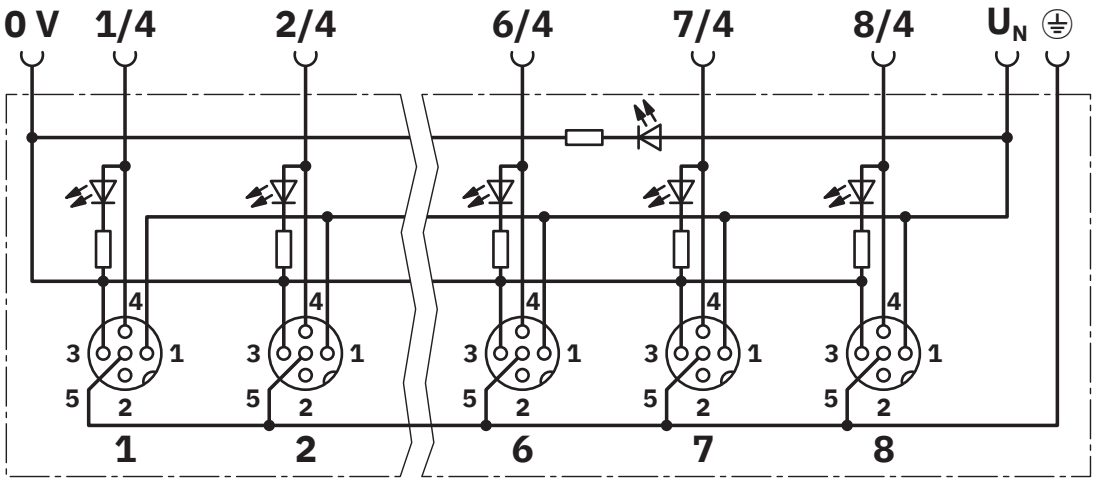


Schematic diagram




M12 slot, socket, 4-pos.

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1452631

**cUL Recognized**
Approval ID: E118976

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 24 V | - | - | - |

**UL Recognized**
Approval ID: E118976

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| Signal | - | 2 A | - | - |
| | 24 V | 4 A | - | - |

**cULus Listed**
Approval ID: E221474

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 24 V | 12 A | - | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440108 |
| ECLASS-15.0 | 27440108 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002585 |

### UNSPSC

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

## 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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