

Sensor/actuator box - SACB-8/ 8-L- 5,0PUR SCO P NPN - 1405737

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Sensor/actuator box, connection method: M12-SPEEDCON-socket Plastic, number of slots: 8, number of positions: 4, coding: A - standard, slot assignment: single, status display: yes, npn; 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
- ✓ Flexible, distributed bundling of signals in one master cable
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics
- ✓ Save time, thanks to installation with SPEEDCON fast locking system



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 782913 |
| GTIN | 4046356782913 |
| Weight per Piece (excluding packing) | 760.000 g |
| Custom tariff number | 85444290 |
| Country of origin | Germany |

Technical data

General

| | |
|--|---------|
| Rated voltage | 24 V DC |
| Max. operating voltage U_{max} | 30 V DC |
| Current carrying capacity per I/O signal | 2 A |
| Current carrying capacity per slot | 4 A |
| Total rated current | 12 A |

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Technical data

General

| | |
|-----------------------------------|---|
| Number of positions | 4 |
| Number of slots | 8 |
| Sensor/actuator connection system | M12-SPEEDCON-socket |
| 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. |
| | Unused slots are to be sealed off prior to commissioning. Suitable sealing elements are to be found under "Accessories". |

Ambient conditions

| | |
|---------------------------------|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -25 °C ... 80 °C |
| | -40 °C ... 90 °C (for fixed installation) |
| | -5 °C ... 80 °C (for flexible installation) |

Local diagnostics function

| | |
|-------------------|-------------------------------|
| Local diagnostics | Supply voltage Green LED |
| | Status display I/O Yellow LED |

Master cable connection data

| | |
|--|------------------|
| Connection method | Fixed connection |
| Length of cable | 5 m |
| Tightening torque slot sensor/actuator cable | 0.4 Nm |
| Tightening torque of mounting screw for fixing the housing | 0.5 Nm |

Insulation material

| | |
|-------------------------------|-------------|
| Housing material | PBT |
| Material of the moulding mass | PUR |
| Contact material | Cu alloy |
| Contact surface material | gold-plated |
| Contact carrier material | PA |
| Material of threaded sleeve | PBT |
| O-ring material | NBR |

Pin assignment

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

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Pin assignment

| | |
|--|-----------------------|
| | 5 / 4 (A) = PK |
| | 6 / 4 (A) = RD |
| | 7 / 4 (A) = BK |
| | 8 / 4 (A) = VT |
| | 1-8 / 1 (+ 24 V) = BN |
| | 1-8 / 3 (0 V) = BU |
| | 1-8 / 5 (PE) = GN/YE |

Standards and Regulations

| | |
|----------------------------------|-------------------------------|
| Standards/specifications | M12 connector IEC 61076-2-101 |
| Connection in acc. with standard | CUL |

Cable

| | |
|---|---|
| Cable type | PUR/PVC black |
| Cable type (abbreviation) | PUR |
| Cable abbreviation | LiYY11Y-HF |
| UL AWM style | 20549 (80°C/300 V) |
| Conductor cross section | 8x 0.34 mm ² (Signal line) |
| | 3x 0.75 mm ² (power line) |
| AWG signal line | 22 |
| AWG power supply | 18 |
| Conductor structure signal line | 19x 0.15 mm |
| Conductor structure, voltage supply | 42x 0.15 mm |
| Core diameter including insulation | 1.3 mm ±0.1 mm (Signal line) |
| | 1.8 mm ±0.1 mm (power line) |
| Wire colors | brown, blue, green/yellow, white, green, yellow, gray, pink, red, black, violet |
| Overall twist | Wires twisted in layers |
| External sheath, color | black RAL 9005 |
| Inner sheath thickness | ≥ 0.15 mm |
| Outer sheath thickness | ≥ 0.38 mm |
| External cable diameter D | 8.5 mm ±0.2 mm |
| Minimum bending radius, fixed installation | 7.5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 1500000 |
| Minimum bending radius, drag chain applications | 10 x D |
| Traversing path | 2 m |
| Traversing rate | 2 m/s |
| Cable weight | 107.4 kg/km |

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Technical data

Cable

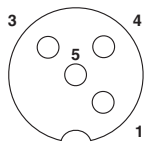
| | |
|---------------------------------|--|
| Outer sheath, material | PUR |
| Material, inner sheath | PVC |
| Material conductor insulation | PVC |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | $\geq 5 \text{ M}\Omega \cdot \text{km}$ |
| Conductor resistance | $\leq 53 \text{ }\Omega/\text{km}$ (Signal line) |
| | $\leq 26 \text{ }\Omega/\text{km}$ (power line) |
| Nominal voltage, cable | 300 V AC |
| Test voltage Core/Core | 2000 V (50 Hz, 5 min.) |
| Special properties | Silicone-free |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| Flame resistance | DIN EN 50265 |
| Resistance to oil | according to VDE 0472 Part 803 |
| Ambient temperature (operation) | -40 °C ... 90 °C (cable, fixed installation) |
| | -5 °C ... 80 °C (cable, flexible installation) |

Environmental Product Compliance

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

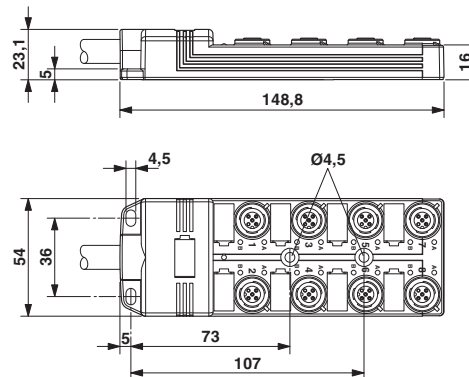
Drawings

Schematic diagram



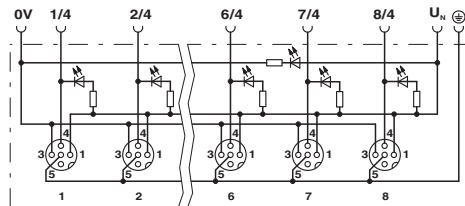
M12 slot, socket, 4-pos.

Dimensional drawing



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Circuit diagram



Cable cross section



PUR/PVC black [PUR]

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Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440108 |
| eCl@ss 11.0 | 27440108 |
| eCl@ss 4.0 | 27140800 |
| eCl@ss 4.1 | 27140800 |
| eCl@ss 5.0 | 27143400 |
| eCl@ss 5.1 | 27250300 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279219 |
| eCl@ss 9.0 | 27440108 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001856 |
| ETIM 4.0 | EC002585 |
| ETIM 6.0 | EC002585 |
| ETIM 7.0 | EC002585 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31261501 |
| UNSPSC 7.0901 | 31261501 |
| UNSPSC 11 | 31261501 |
| UNSPSC 12.01 | 31261501 |
| UNSPSC 13.2 | 31251501 |
| UNSPSC 19.0 | 31251501 |
| UNSPSC 20.0 | 31251501 |
| UNSPSC 21.0 | 31251501 |

Approvals

Approvals

Approvals

EAC / UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details

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Approvals

| | | |
|-----|--|--------------------------|
| EAC | | RU C- DE.BL08.B.00511 |
|-----|--|--------------------------|

| | | | |
|--------------------|--|---|---------------|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | File E 118976 |
| Nominal voltage UN | | 24 V | |

| | | | |
|--------------------|--|---|---------------|
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | File E 118976 |
| Nominal voltage UN | | 24 V | |

| | |
|------------------|--|
| cULus Recognized | |
|------------------|--|

Accessories

Accessories

Device marking

Snap-in markers - UC-EM (17,5X9) - 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 into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

Snap-in markers - UCT-EM (17,5X9) - 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 into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 24

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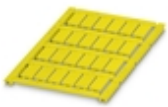
Accessories

Snap-in markers - UC-EM (17,5X9) YE - 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 into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

Snap-in markers - UCT-EM (17,5X9) YE - 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 into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 24

Labeled device marker

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

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



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

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

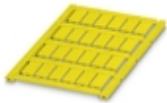


Snap-in markers, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

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Accessories

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



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

Mounting rail adapter

DIN rail adapter - UTA 136 - 2853996

Universal DIN rail adapter, for screwing on switchgear



Plug for cable screw gland

Screw plug - PROT-MS SCO - 1553129



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

Screwdriver tools

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

Tool - SAC BIT M12-D15 - 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

Tool - SACC BIT M12-D20 - 1208445



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

Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



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

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



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