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Sensor/actuator box, Connection method: M12-SPEEDCON-socket Plastic, Number of slots: 6, Number of positions: 5, Slot assignment: Double, Status indication: Yes, pnp; Master cable connection: Fixed connection 180°, PUR/PVC, Cable length: 5 m, Shielding: No

#### **Product Features**

- Safety in the field, thanks to molded housing and high degree of protection
- Flexible, distributed bundling of signals in one master cable
- Save space: distributor box with double occupancy for two sensors in one slot
- Save time, thanks to installation with SPEEDCON fast locking system



#### Key commercial data

| Packing unit                         | 1 PCE     |
|--------------------------------------|-----------|
| Weight per Piece (excluding packing) | 960.0 GRM |
| Custom tariff number                 | 85444290  |
| Country of origin                    | Germany   |

#### Technical data

#### General

| Rated voltage                            | 24 V DC             |
|--|---------------------|
| Max. operating voltage U <sub>max</sub>  | 30 V DC             |
| Current carrying capacity per I/O signal | 2 A                 |
| Current carrying capacity per slot       | 4 A                 |
| Total rated current                      | 12 A                |
| Number of positions                      | 5                   |
| Number of slots                          | 6                   |
| Sensor/actuator connection system        | M12-SPEEDCON-socket |

#### Ambient conditions



## Technical data

#### 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           |

#### Insulation material

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

#### Pin assignment

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



## Technical data

#### Pin assignment

|   | 1-6 / 5 (PE) = GN/YE                                       |
|---|--|
| Cable   |  |
| Cable type                                    | PUR/PVC black  |
| Cable type (abbreviation)                     | PUR  |
| Cable abbreviation                            | LiYY11Y-HF   |
| UL AWM style                                  | 20549  |
| Conductor cross section                       | 12x 0.5 mm² (signal line)                                  |
|   | 3x 1 mm² (power line)                                      |
| AWG signal line                               | 20   |
| AWG power supply                              | 17   |
| Conductor structure signal line               | 28x 0.15 mm  |
| Conductor structure, voltage supply           | 56x 0.15 mm  |
| Core diameter including insulation            | 1.5 mm ±0.1 mm (signal line)                               |
|   | 2.1 mm ±0.1 mm (power line)                                |
| Thickness, insulation                         | ≥ 0.15 mm (Inner sheath)                                   |
|   | ≥ 0.76 mm (Outer cable sheath)                             |
| Overall twist                                 | Wires twisted in layers                                    |
| External sheath, color                        | Black RAL 9005   |
| External cable diameter D                     | 9.4 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  |
| Bending radius                                | 94 mm  |
| Traversing path                               | 2 m  |
| Traversing rate                               | 2 m/s  |
| Cable weight                                  | 150.9 kg/km  |
| Outer sheath, material                        | PUR  |
| Material, inner sheath                        | PVC  |
| Material conductor insulation                 | PVC  |
| Conductor material                            | Bare Cu litz wires   |
| Nominal voltage, cable                        | 300 V  |
| Test voltage, cable                           | 2000 V   |
| Special properties                            | Silicone-free  |
| Flame resistance                              | DIN EN 50265   |
| Resistance to oil                             | As per VDE 0472 Part 803                                   |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents |
| Ambient temperature (operation)               | -40 °C 90 °C (cable, fixed installation)                   |
|   |  |



#### Technical data

| -5 °C 80 °C (cable, flexible installation) |
|--|

#### Classifications

#### eCl@ss

| eCl@ss 4.0 | 27140815 |
|------------|----------|
| eCl@ss 4.1 | 27140815 |
| eCl@ss 5.0 | 27143423 |
| eCl@ss 5.1 | 27143423 |
| eCl@ss 6.0 | 27143423 |
| eCl@ss 7.0 | 27449001 |
| eCl@ss 8.0 | 27279219 |

#### **ETIM**

| ETIM 4.0 | EC002585 |
|----------|----------|
| ETIM 5.0 | EC002585 |

#### UNSPSC

| UNSPSC 6.01   | 31261501 |
|---------------|----------|
| UNSPSC 7.0901 | 31261501 |
| UNSPSC 11     | 31261501 |
| UNSPSC 12.01  | 31261501 |
| UNSPSC 13.2   | 31261501 |

## Approvals

#### Approvals

Approvals

UL Recognized / cUL Recognized / GOST / cULus Recognized

Ex Approvals

Approvals submitted



## Approvals

Approval details

| UL Recognized <b>%</b>  |  |
|-------------------------|--|
|                         |  |
|                         |  |
| Nominal voltage UN 24 V |  |

| cUL Recognized (51) |      |  |  |
|---------------------|------|--|--|
|                     |      |  |  |
| Nominal voltage UN  | 24 V |  |  |

| GOST |  |  |
|------|--|--|



#### Accessories

#### Accessories

#### Device marking

Contactor marker - zack marker strip - SS-ZB 17,5 WH - 0804963



Contactor marker – zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, Lettering field:  $17.5 \times 8 \text{ mm}$ 

Contactor marker - zack marker strip - SS-ZB 17,5 YE - 0804976



Contactor marker – zack marker strip, Strip, yellow, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, Lettering field: 17.5 x 8 mm



#### Accessories

#### Labeled device marker

Contactor marker - zack marker strip - SS-ZB 17,5 WH CUS - 0824468



Contactor marker – zack marker strip, Can be ordered: Strip, white, Labeled according to customer specifications, Mounting type: Snap into flat marker groove, Lettering field: 17.5 x 8 mm

Contactor marker - zack marker strip - SS-ZB 17,5 YE CUS - 0824469



Contactor marker – zack marker strip, Can be ordered: Strip, yellow, Labeled according to customer specifications, Mounting type: Snap into flat marker groove, Lettering field: 17.5 x 8 mm

#### Protective cap

Screw plug - PROT-MS SCO - 1553129



M12 screw plug with SPEEDCON quick locking for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors

#### Screwdriver tools

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive



#### Accessories

Tool - SACC BIT M12-D20 - 1208445



Nut for assembling SACC M12 connectors for free assembly, excluding M12 connectors with QUICKON fast connection technology, 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

## **Drawings**

Schematic diagram



M12 slot, socket, 5-pos.

Cable cross section



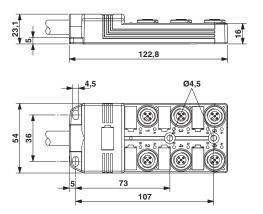
PUR/PVC black [PUR]



#### Circuit diagram

# 0V 1/2 1/4 2/2 2/4 6/2 6/4 7/2 7/4 8/2 8/4 Un ®

#### Dimensioned drawing



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