

## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

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Sensor/actuator box, application: Standard, connection method: M12-SPEEDCON-socket Metal, number of slots: 8, number of positions: 4, coding: A - standard, slot assignment: single, status display: No, Universal; master cable connection: Pluggable screw connection 180°, 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
- ✓ Save time, thanks to installation with SPEEDCON fast locking system
- ✓ Flexible: distributor box with connector hood for on-site assembly



### Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 1 pc  |
| GTIN         | <br>4 017918 967611 |
| GTIN         | 4017918967611   |

### Technical data

#### General

|  |  |
|--|--|
| Rated voltage                            | 120 V AC   |
|  | 120 V DC   |
| Max. operating voltage $U_{max}$         | 135 V  |
| Current carrying capacity per I/O signal | 2 A  |
| Current carrying capacity per slot       | 4 A  |
| Total rated current                      | 10 A   |
|  | 2x 8 A (For electrical isolation)  |
| Number of positions                      | 4  |
| Number of slots                          | 8  |
| Flammability rating according to UL 94   | V0   |
| Sensor/actuator connection system        | M12-SPEEDCON-socket  |
| Note                                     | For details about the PCB connectors used, refer to the technical data for MC 1,5/10-STF-3,5 (1847204) |

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## Technical data

### General

|  |   |
|--|---|
|  | 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             |
|                                 | IP69K            |
| Ambient temperature (operation) | -30 °C ... 80 °C |

### Master cable data/connection data

|  |                            |
|--|----------------------------|
| Connection method  | Pluggable screw connection |
| Conductor cross section min. (signal)                      | 0.14 mm <sup>2</sup>       |
| Conductor cross section max. (signal)                      | 1.5 mm <sup>2</sup>        |
| Conductor cross section AWG min. (signal)                  | 26                         |
| Conductor cross section AWG max. (signal)                  | 16                         |
| Stripping length (signal)                                  | 7 mm                       |
| Conductor cross section min. (energy)                      | 0.14 mm <sup>2</sup>       |
| Conductor cross section max. (energy)                      | 1.5 mm <sup>2</sup>        |
| Conductor cross section AWG min. (energy)                  | 26                         |
| Conductor cross section AWG max. (energy)                  | 16                         |
| External cable diameter min.                               | 7 mm                       |
| External cable diameter max.                               | 12 mm                      |
| Stripping length   | 50 mm (Master cable)       |
| Tightening torque, cover screw                             | 0.35 Nm                    |
| Tightening torque, union nut                               | 2.5 Nm                     |
| 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 contact, master cable side                   | CU alloy      |
| Material of contact surface, master cable side           | Gold-plated   |
| Material of the contact carrier on the master cable side | PA 6.6 V0     |
| Material of threaded sleeve                              | Zinc die-cast |
| Material of threaded sleeve surface                      | Nickel-plated |
| O-ring material  | NBR           |

## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### Technical data

#### Pin assignment

|  |                                    |
|--|------------------------------------|
| Slot/position = Wire color or connection | 1 / 4 (A) = 1 / 4                  |
|  | 2 / 4 (A) = 2 / 4                  |
|  | 3 / 4 (A) = 3 / 4                  |
|  | 4 / 4 (A) = 4 / 4                  |
|  | 5 / 4 (A) = 5 / 4                  |
|  | 6 / 4 (A) = 6 / 4                  |
|  | 7 / 4 (A) = 7 / 4                  |
|  | 8 / 4 (A) = 8 / 4                  |
|  | 1-8 / 1 (+ 120 V) = U <sub>N</sub> |
|  | 1-8 / 3 (0 V) = 0 V                |
|  | 1-8 / 5 (PE) = PE                  |

#### Standards and Regulations

|  |                               |
|--|-------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-101 |
| Connection in acc. with standard       | CUL                           |
| Flammability rating according to UL 94 | V0                            |

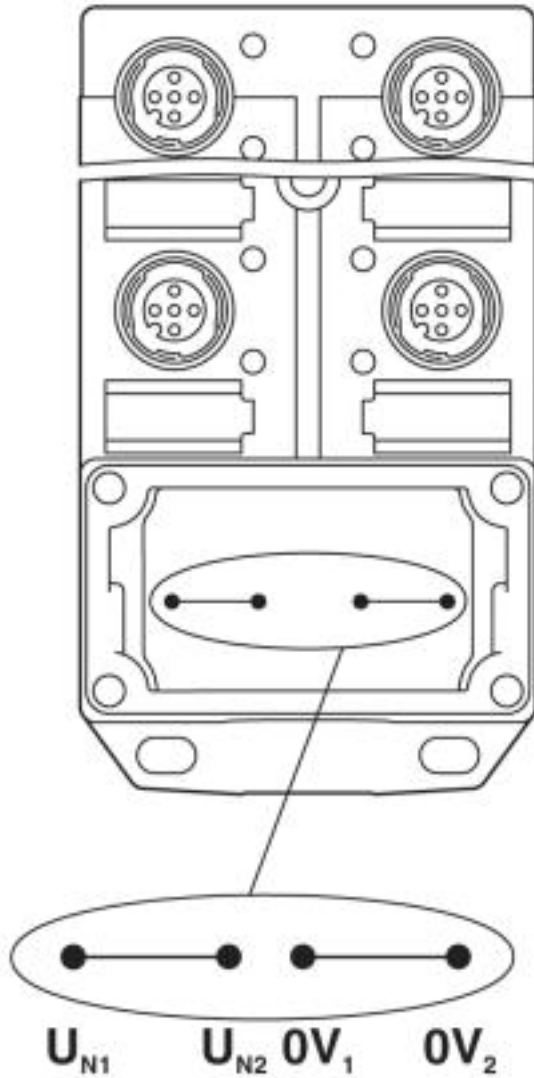
#### Environmental Product Compliance

|            |   |
|------------|---|
| REACH SVHC | Lead 7439-92-1  |
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

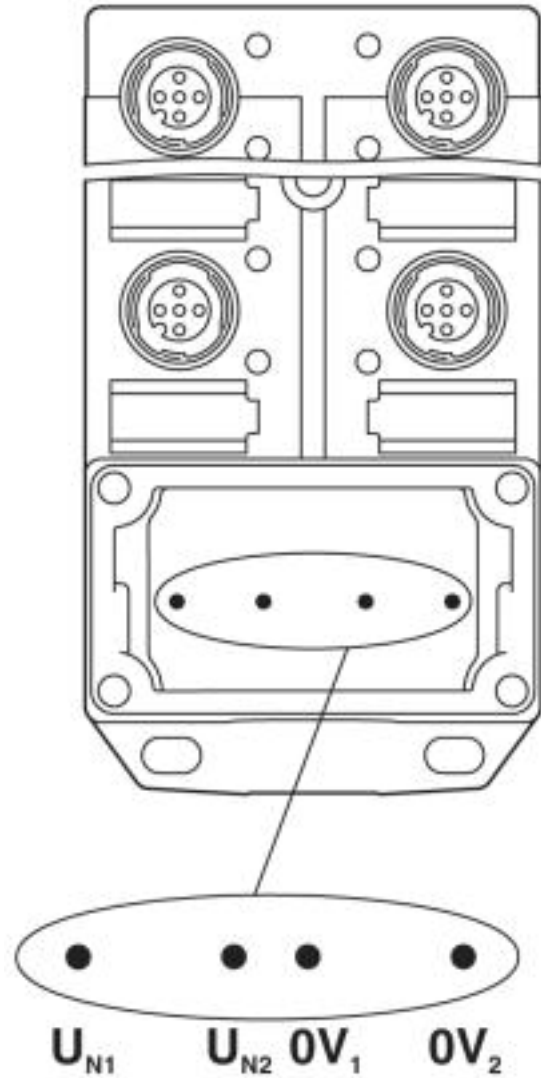
## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

Schematic diagram



Potential  $U_{N1}$  and  $U_{N2}$  bridged. Potential assignment:  $U_{N1} = U_{N2} =$  slots 1,2,3,4,5,6,7,8.

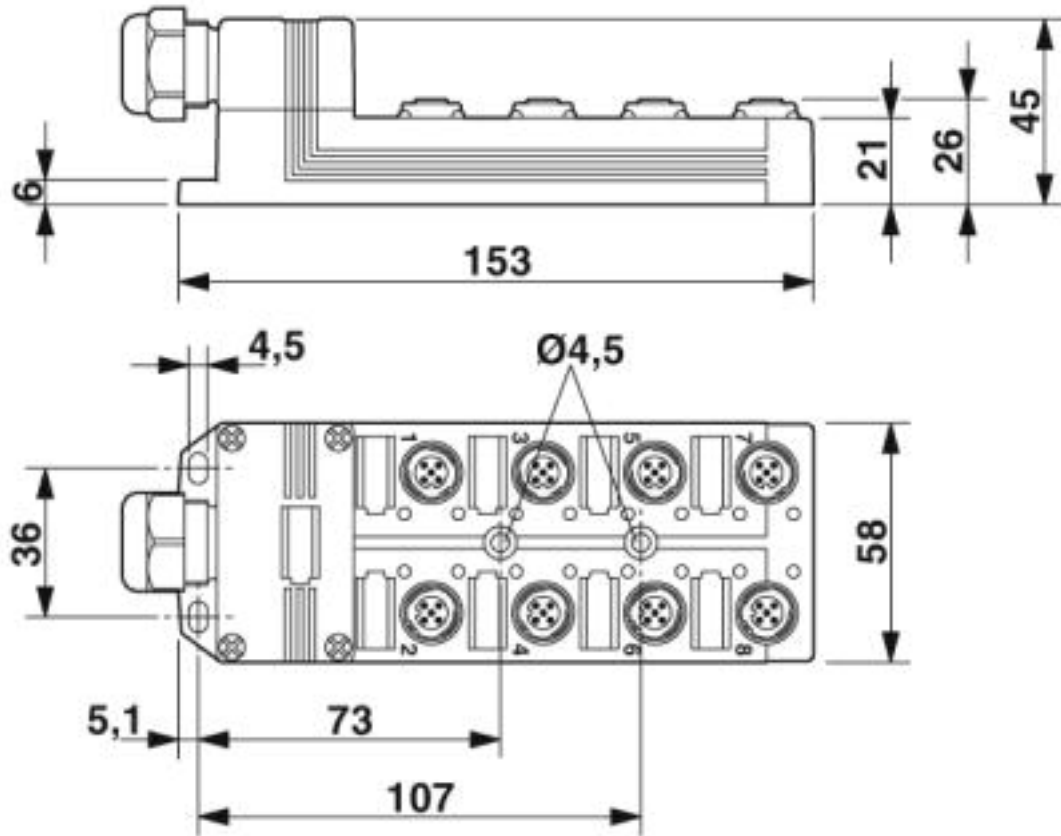
Schematic diagram



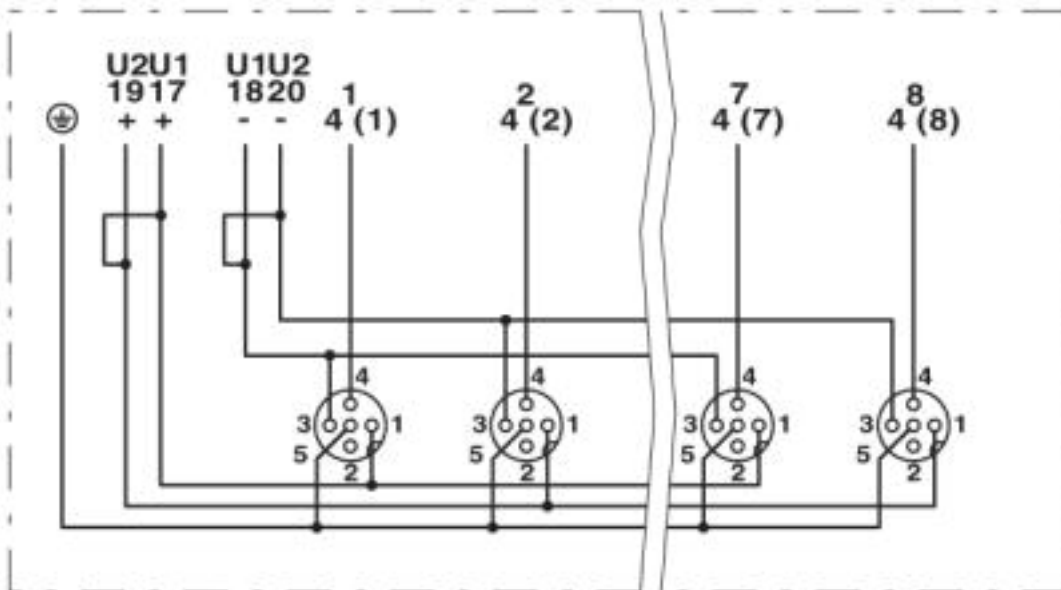
Electrically isolated. Potential assignment:  $U_{N1} =$  slots 1,3,5,7 and  $U_{N2} =$  slots 2,4,6,8.

# Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

Dimensional drawing

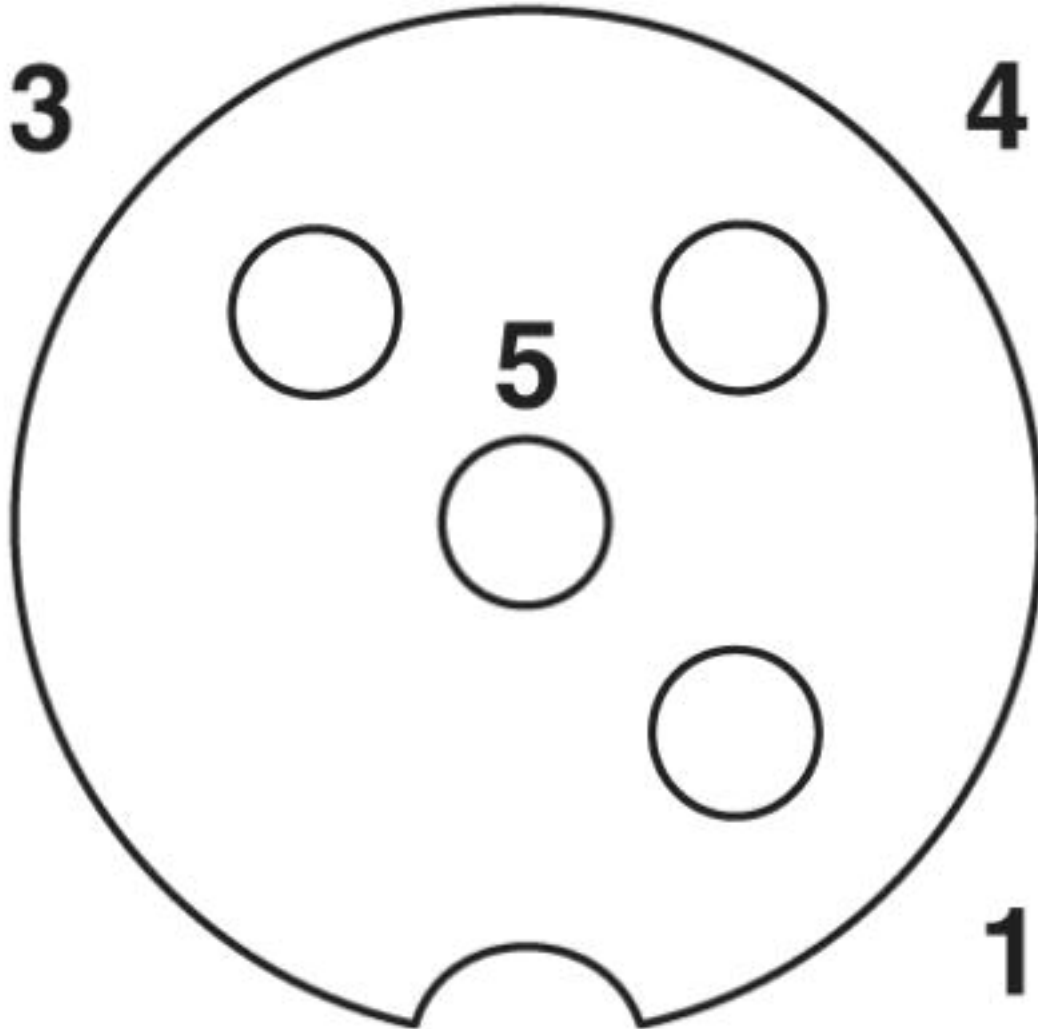


Circuit diagram



# Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

Schematic diagram



M12 slot, socket, 4-pos.

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 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 8.0    | 27279219 |
| eCl@ss 9.0    | 27440108 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000200 |
| ETIM 3.0 | EC001856 |
| ETIM 4.0 | EC002585 |
| ETIM 5.0 | 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

UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                    |   |   |               |
|--------------------|---|---|---------------|
| UL Recognized      |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 118976 |
| Nominal voltage UN | 120 V   |   |               |
| Nominal current IN | 3 A   |   |               |

|                    |   |   |               |
|--------------------|---|---|---------------|
| cUL Recognized     |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 118976 |
| Nominal voltage UN | 120 V   |   |               |

## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### Approvals

|                                |     |
|--------------------------------|-----|
| Nominal current I <sub>N</sub> | 3 A |
|--------------------------------|-----|

|     |  |                          |
|-----|--|--------------------------|
| EAC |  | RU C-<br>DE.AI30.B.01102 |
|-----|--|--------------------------|

|     |  |                          |
|-----|--|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00511 |
|-----|--|--------------------------|

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

### Accessories

#### Accessories

#### Cable by the meter

Master cable ring - SACB- 8X0,34/ 3X0,75-50,0 PUR - 1503344



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PVC, 11-pos., 8 x 0.34 mm<sup>2</sup> and 3 x 0.75 mm<sup>2</sup>

#### Connector hood without master cable

Connector hood - SACB-C-H180 8/16 SCO - 1516713



Connector hood with an integrated connector, for M12 sensor/actuator boxes with metal thread and pluggable screw connection, for 4, 6 or 8 slots

### 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



## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### Accessories

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#### 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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#### 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

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#### 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

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### 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

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#### 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

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## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### Accessories

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

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



### 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

## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### 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

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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

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Philips screwdriver - SZK PZ1 VDE - 1206450



Screwdriver, PZ crosshead, VDE insulated, size: PZ 1 x 80 mm, 2-component grip, with non-slip grip

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Tool - SAC BIT HOOD-W 24 - 1212486



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

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Screw insert - SF-BIT-PZ 1-50 - 1212591



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

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## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### Accessories

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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Screwdriver - SF-BIT-SL 0,45X2,4-70 - 1212607



Screw bit, slotted, E6.3-1/4" drive, size: 0.45 x 2.4 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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Screwdriver - SF-M BH - 1212070



Bit screwdriver, with 1/4" quick-action chuck, handle length 119 mm, 2-component handle, with non-slip grip, suitable for bits according to DIN 3126-C 6.3 and E 6.3/ISO 1173, magnetic

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### 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

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



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

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## Sensor/actuator box - SACB-8/ 8-C SCO - 1516881

### Accessories

Torque screwdriver - TSD 25 SAC - 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 - TSD-M 3NM - 1212225



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

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