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Sensor/actuator box, application: Standard, connection method: M12-SPEEDCON-socket Plastic, number of slots: 8, number of positions: 4, coding: A - standard, slot assignment: single, status display: yes, pnp; master cable connection: Spring-cage connection 180°, shielding: No

#### Why buy this product

- 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
- Flexible: distributor box with connector hood for on-site assembly



## **Key Commercial Data**

Packing unit	1 STK
GTIN	4 046356 553643
GTIN	4046356553643
Weight per Piece (excluding packing)	224.200 g
Custom tariff number	85366990
Country of origin	Poland

#### 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	4
Number of slots	8
Flammability rating according to UL 94	V0



## Technical data

### General

Sensor/actuator connection system	M12-SPEEDCON-socket
Note	When connecting the signal lines to the black PCB terminal blocks, please use a 0.4 x 2.0 mm screwdriver.  The black PCB terminal blocks only require a minimal amount of operating force.  Screwdriver: SZS 0,4X2,0 - 1205202  Using larger screwdrivers or excessive force may damage the PCB terminal blocks.  When using ferrules, the wires can be inserted straight into the PCB terminal blocks without opening the clamping area.
	Item 1412060 SACB-8/16-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.

#### Ambient conditions

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

### Local diagnostics function

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

#### Master cable data/connection data

Connection method	Spring-cage connection
Conductor cross section min. (signal)	0.2 mm²
Conductor cross section max. (signal)	0.5 mm²
Conductor cross section AWG min. (signal)	24
Conductor cross section AWG max. (signal)	20
Stripping length (signal)	6 mm
Conductor cross section min. (energy)	0.2 mm <sup>2</sup>
Conductor cross section max. (energy)	1.5 mm <sup>2</sup>
Conductor cross section AWG min. (energy)	24
Conductor cross section AWG max. (energy)	16
Stripping length (power)	10 mm
External cable diameter min.	7 mm
External cable diameter max.	12 mm
Stripping length	50 mm (Master cable)
Tightening torque, cover screw	1 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



## Technical data

### Insulation material

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
Sealing material	NBR (Connector hood)

## 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
	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

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

#### **Environmental Product Compliance**

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

## Drawings

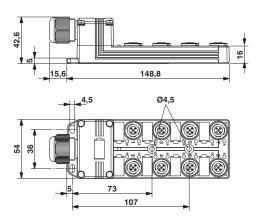


### Schematic diagram

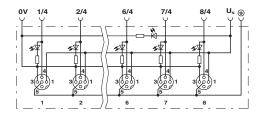


M12 slot, socket, 4-pos.

### Dimensional drawing



Circuit diagram



## 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
eCI@ss 7.0	27449001
eCl@ss 8.0	27279219
eCl@ss 9.0	27440108

#### **ETIM**

ETIM 4.0	EC002585
ETIM 5.0	EC002585
ETIM 6.0	EC002585



## Classifications

### **UNSPSC**

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	31251501

## Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

### Approval details

UL Recognized	<i>9</i> 1	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 118976
Nominal current IN			4 A	
Nominal voltage UN			24 V	

cUL Recognized	. <b>A</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 118976
Nominal voltage UN			24 V	

EAC EAC-Zulassung

cULus Recognized



http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

#### Accessories

#### 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.,  $8 \times 0.34 \text{ mm}^2$  and  $3 \times 0.75 \text{ mm}^2$ 

#### Connector

Ferrule - A 0,5 - 6 - 3200218



Ferrule, sleeve length: 6 mm, length: 6 mm, color: silver

#### Ferrule - A 0,75-10 - 3200234



Ferrule, sleeve length: 10 mm, length: 10 mm, color: silver

#### Ferrule - A 1 -10 - 3200250



Ferrule, sleeve length: 10 mm, length: 10 mm, color: silver

#### Ferrule - A 1,5 -10 - 3200276



Ferrule, sleeve length: 10 mm, length: 10 mm, color: silver

#### Device marking



#### Accessories

Snap-in markers - UC-EM (17,5X9) - 0827490



Snap-in markers, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm

Snap-in markers - UCT-EM (17,5X9) - 0801491



Snap-in markers, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm

Snap-in markers - UC-EM (17,5X9) YE - 0827494



Snap-in markers, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm

Snap-in markers - UCT-EM (17,5X9) YE - 0801492



Snap-in markers, Sheet, yellow, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm

#### 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:  $17.5 \times 9 \text{ mm}$ 



#### Accessories

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

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

Electronic housing - UTA 136 - 2853996

Universal DIN rail adapter, for screwing on switchgear



#### Protective cap

Screw plug - PROT-MS SCO - 1553129



 ${\tt M12~screw~plug~with~SPEEDCON~quick~locking~for~unoccupied~M12~sockets~of~the~sensor/actuator~cables,~boxes~and~flush-type~connectors}$ 

Screwdriver tools



#### Accessories

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

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

Philips screwdriver - SZK PZ2 VDE - 1206463



Screwdriver, PZ crosshead, VDE insulated, size: PZ 2 x 100 mm, 2-component grip, with non-slip grip

Tool - SAC BIT HOOD-W 24 - 1212486



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



#### Accessories

Screw insert - SF-BIT-PZ 2-50 - 1212592



Screw bit, PZ crosshead, E6.3-1/4" drive, size: PZ 2 x 50 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

Screwdriver - SZS 0,4X2,0 - 1205202



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

#### 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

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



### Accessories

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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