

## Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Sensor/actuator box, Connection method: M12 socket Plastic, Number of slots: 6, Number of positions: 4, Slot assignment: Double, Status indication: Yes, npn; Master cable connection: Spring-cage conn. 180°, Shielding: No

The illustration shows a version with 8 slots

### Product Features

- Safety in the field, thanks to robust 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 space: distributor box with double occupancy for two sensors in one slot
- Flexible: distributor box with connector hood for on-site assembly



### Key commercial data

Packing unit	1 PCE
Weight per Piece (excluding packing)	157.3 GRM
Custom tariff number	85444290
Country of origin	Poland

### 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
Number of positions	4
Number of slots	6
Inflammability class according to UL 94	V0

# Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

## Technical data

### General

Sensor/actuator connection system	M12 socket
-----------------------------------	------------

### Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 75 °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 conn.
Conductor cross section min. (signal)	0.14 mm <sup>2</sup>
Conductor cross section max. (signal)	1 mm <sup>2</sup>
Conductor cross section AWG min. (signal)	26
Conductor cross section AWG max. (signal)	18
Stripping length (signal)	10 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
External cable diameter min.	9.5 mm
External cable diameter max.	6.5 mm
Tightening torque, union nut	2.5 Nm
Tightening torque slot sensor/actuator cable	0.4 Nm

### Insulation material

Housing material	PA
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA
Material of contact, master cable side	CuZn
Material of contact surface, master cable side	NiSn
Material of the contact carrier on the master cable side	PA 66 V0
Material of threaded sleeve	PA
Material, O-ring	NBR

### Pin assignment

Slot/position = Wire color or connection	1 / 4 (A) = 1 / 4
--	-------------------

## Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

### Technical data

#### Pin assignment

	1 / 2 (B) = 1 / 2
	2 / 4 (A) = 2 / 4
	2 / 2 (B) = 2 / 2
	3 / 4 (A) = 3 / 4
	3 / 2 (B) = 3 / 2
	4 / 4 (A) = 4 / 4
	4 / 2 (B) = 4 / 2
	5 / 4 (A) = 5 / 4
	5 / 2 (B) = 5 / 2
	6 / 4 (A) = 6 / 4
	6 / 2 (B) = 6 / 2
	1-6 / 1 (+ 24 V) = U <sub>N</sub>
	1-6 / 3 (0 V) = 0 V
	1-6 / 5 (PE) = PE

### 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

#### ETIM

ETIM 2.0	EC000200
ETIM 3.0	EC001856
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

# Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

## Approvals

Approvals

---

Approvals

UL Recognized / cUL Recognized / GOST / cULus Recognized

---

Ex Approvals

---

Approvals submitted

---

## Approval details

UL Recognized	
mm <sup>2</sup> /AWG/kcmil	22-16
Nominal voltage UN	24 V

cUL Recognized	
mm <sup>2</sup> /AWG/kcmil	22-16
Nominal voltage UN	24 V

GOST	
------	--

cULus Recognized	
------------------	--

## Accessories

Accessories

Cable by the meter

## Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

### Accessories

Master cable ring - SACB-12X0,5/ 3X1,0-50,0 PUR - 1503360



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PVC, 15-pos., 12 x 0.50 mm² and 3 x 1.00 mm², length: 50 m

---

### Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

---

### Protective cap

Screw plug - PROT-M12 - 1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, 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

## Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

### 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

---

Philips screwdriver - SZK PZ2 VDE - 1206463



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

---

### Seal

Grommet - SACB-D PG 13,5 (4,0-6,5) YE - 1680377



Rubber seal for Pg13.5 screw connection, for 4.0 mm ... 6.5 mm cable diameter

---

Grommet - SACB-D PG 13,5 (6,5-9,5) BK - 1680380



Rubber seal for Pg13.5 screw connection, for 6.5 mm ... 9.5 mm cable diameter

---

Grommet - SACB-D PG 13,5 (9,0-13,0) RD - 1680393



Rubber seal for Pg13.5 screw connection, for 9.0 mm ... 13.0 mm cable diameter

---

# Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

## Accessories

Torque tool

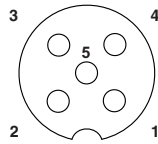
Torque screwdriver - TSD 04 SAC - 1208429



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

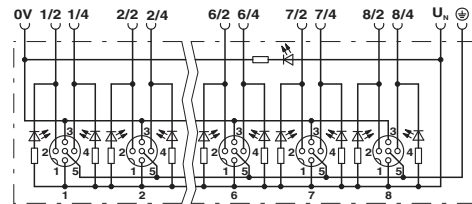
## Drawings

Schematic diagram



M12 slot, socket, 5-pos.

Circuit diagram



# Sensor/actuator box - SACB-6/ 12-L-SC NPN - 1680775

Dimensioned drawing

