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Sensor/actuator flush-type plug, 8-pos., M12 SPEEDCON, rear/screw mounting with M12 thread, with 0.5 m TPE litz wire, 8 x  $0.25 \text{ mm}^2$ 

### Why buy this product

- Pre-assembled with litz wires for immediate use
- ☑ Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- Standard pin assignments for signal and power transmission with a uniform design-in design
- For high transmission safety: shield connection to the housing with optional EMC nut
- SPEEDCON fast locking system reduces cabling times



### Key Commercial Data

| Packing unit                         | 1 STK           |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 161978 |
| GTIN                                 | 4046356161978   |
| Weight per Piece (excluding packing) | 22.400 g        |
| Custom tariff number                 | 85444290        |
| Country of origin                    | Germany         |

## Technical data

#### Dimensions

| Length of cable    | 0.5 m |
|--------------------|-------|
| Ambient conditions |       |

| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection            | IP67                         |

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# Technical data

### General

| Note                        | The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration. |
|-----------------------------|--|
| Rated current at 40°C       | 2 A  |
| Rated voltage               | 30 V   |
| Rated surge voltage         | 0.8 kV   |
| Number of positions         | 8  |
| Insulation resistance       | $\geq$ 100 MΩ  |
| Coding                      | A - standard   |
| Standards/regulations       | M12 connector IEC 61076-2-101  |
| Status display              | No   |
| Overvoltage category        | 11   |
| Degree of pollution         | 3  |
| Connection method           | Individual wires   |
| Insertion/withdrawal cycles | > 100  |
| Torque                      | 3 Nm 4 Nm (Installation-side)  |
| Mounting type               | Rear mounting M12 x 1 With flat nut  |

### Material

| Flammability rating according to UL 94 | V0                           |
|--|------------------------------|
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA 6.6                       |
| Material, knurls                       | Zinc die-cast, nickel-plated |
| Sealing material                       | NBR                          |

Cable

| Cable type                         | TPE litz wire                                      |
|------------------------------------|--|
| Conductor cross section            | 0.25 mm <sup>2</sup>                               |
| AWG signal line                    | 24   |
| Conductor structure signal line    | 14x 0.15 mm  |
| Core diameter including insulation | 1.15 mm ±0.07 mm                                   |
| Thickness, insulation              | 0.21 mm  |
| Wire colors                        | Brown, blue, white, gray, pink, green, yellow, red |
| Material conductor insulation      | TPE  |
| Conductor material                 | Tin-plated Cu litz wires                           |
| Standards/specifications           | M12 connector IEC 61076-2-101                      |
| Insulation resistance              | $\geq$ 20 MΩ*km                                    |

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## Technical data

### Cable

| Conductor resistance            | $\leq$ 80 mΩ/m                              |
|---------------------------------|---|
| Nominal voltage, cable          | 300 V                                       |
| Test voltage, cable             | 2000 V AC                                   |
| Ambient temperature (operation) | -40 °C 85 °C (cable, fixed installation)    |
|                                 | -25 °C 85 °C (cable, flexible installation) |

### Standards and Regulations

| Standard designation                   | M12 connector   |
|--|-----------------|
| Standards/regulations                  | IEC 61076-2-101 |
| Flammability rating according to UL 94 | V0              |

### **Environmental Product Compliance**

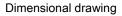
| China RoHS | Environmentally Friendly Use Period = 50  |
|------------|---|
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

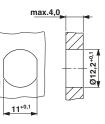
## Drawings

#### **Dimensional drawing**



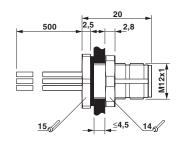
Housing cutout for M12 fastening thread, mounting panel with thread





Housing cutout for M12 fastening thread, mounting panel with feed-through hole (alternative with surface as protection against rotation)

#### Dimensional drawing



Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

M12 flush-type connector

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### Circuit diagram

| r   | 1     |
|-----|-------|
| 1 - | WH    |
| 2   | BN    |
| 3 💻 | GN    |
| 4   | YE    |
| 5 💻 | GY    |
| 6   | PK    |
| 7   | BU    |
| 8   | BD BD |
| ·   | IID.  |

Contact assignment of the M12 plug and the M12 socket

## Classifications

eCl@ss

| eCl@ss 4.0 | 27250313 |
|------------|----------|
| eCl@ss 4.1 | 27250313 |
| eCl@ss 5.0 | 27143423 |
| eCl@ss 5.1 | 27143423 |
| eCl@ss 6.0 | 27143423 |
| eCl@ss 7.0 | 27449001 |
| eCl@ss 8.0 | 27440103 |
| eCl@ss 9.0 | 27440102 |

### ETIM

| ETIM 3.0 | EC002061 |
|----------|----------|
| ETIM 4.0 | EC002062 |
| ETIM 5.0 | EC002061 |
| ETIM 6.0 | EC002061 |

UNSPSC

| UNSPSC 6.01   | 31261501 |
|---------------|----------|
| UNSPSC 7.0901 | 31261501 |
| UNSPSC 11     | 31261501 |
| UNSPSC 12.01  | 31261501 |
| UNSPSC 13.2   | 39121413 |

## Approvals

Approvals



## Approvals

#### Approvals

cULus Recognized / UL Recognized / EAC

Ex Approvals

### Approval details

| http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474-20140616 |                       |              |
|--|-----------------------|--------------|
|  |                       |              |
|  | 24-22                 |              |
|  | 2 A                   |              |
|  | 30 V                  |              |
|  | http://database.ul.co | 24-22<br>2 A |

| UL Recognized      | http://database.ul.c | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 118976 |  |
|--------------------|----------------------|---|--|
|                    |                      |   |  |
| mm²/AWG/kcmil      |                      | 24  |  |
| Nominal current IN |                      | 2 A   |  |
| Nominal voltage UN |                      | 30 V  |  |

|  | EAC | ERC | B.00767 |
|--|-----|-----|---------|
|--|-----|-----|---------|

### Accessories

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#### Accessories

Protective cap

Sealing cap - PROT-M12 FS - 1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field



## Accessories

#### Sealing cap - PROT-M12 FS-M - 1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

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