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Sensor/Actuator flush-type plug, 8-pos., M12-SPEEDCON, A-coded, front/screw mounting with M16 thread, can be positioned, with 0.5 m TPE litz wire,  $8 \times 0.25 \text{ mm}^2$ 

#### 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
- If all standard pin assignments and codings for signal, data, 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 021333 |
| GTIN                                 | 4046356021333   |
| Weight per Piece (excluding packing) | 29.600 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                         |
| 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



## Technical data

### General

|                             | there is a danger of contamination, the connector must be sealed using<br>a protective cap > IP54. Influences arising from litz wires, cables or PCB<br>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 M $\Omega$   |
| 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               | Front mounting M16 x 1.5 With locking nut   |

#### Material

| Flammability rating according to UL 94 | V0                           |
|--|------------------------------|
| Contact material                       | CuZn                         |
| Contact surface material               | Ni/Au                        |
| Contact carrier material               | PA 66                        |
| Material of grip body                  | Zinc die-cast, nickel-plated |
| 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 (Core insulation)                          |
| 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              | $\geq 20 \ M\Omega^* km$                           |
| Conductor resistance               | $\leq 80 \text{ m}\Omega/\text{m}$                 |
| Nominal voltage, cable             | 300 V  |
| Test voltage, cable                | 2000 V AC  |
| Ambient temperature (operation)    | -40 °C 85 °C (cable, fixed installation)           |

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## Technical data

Cable

|  | -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 | VO  |

### **Environmental Product Compliance**

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

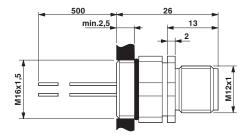
## Drawings

### Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with thread

#### Dimensional drawing



M12 flush-type plug, can be positioned

### Schematic diagram



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

#### Circuit diagram

| l   |       |
|-----|-------|
| 1   | —— WH |
| 2   | —— BN |
| 3 💻 | — GN  |
| 4   | YE    |
| 5 💻 | GY    |
| 6   | — РК  |
| 7   | BU    |
| 8   |       |
|     | ΠD    |

Contact assignment of the M12 plug

## 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 | 27440103 |



## Classifications

## eCl@ss

|  | eCl@ss 9.0 | 27440102 |
|--|------------|----------|
|--|------------|----------|

## ETIM

| ETIM 2.0 | EC001297 |
|----------|----------|
| ETIM 3.0 | EC002061 |
| ETIM 4.0 | EC002062 |
| ETIM 5.0 | EC002061 |
| ETIM 6.0 | EC002061 |

### UNSPSC

| UNSPSC 6.01   | 31251501 |
|---------------|----------|
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 39121413 |

## Approvals

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#### Approvals

cULus Recognized / UL Recognized / EAC

#### Ex Approvals

Γ

## Approval details

| cULus Recognized   | c <b>AL</b> us | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474-20140616 |       |
|--------------------|----------------|--|-------|
|                    |                |  |       |
| mm²/AWG/kcmil      |                |  | 24-22 |
| Nominal current IN |                |  | 2 A   |
| Nominal voltage UN |                |  | 30 V  |

| UL Recognized | <b>71</b> | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm F |       | FILE E 118976 |
|---------------|-----------|---|-------|---------------|
|               |           |   |       |               |
| mm²/AWG/kcmil |           |   | 26-20 |               |



## Approvals

| Nominal current IN | 2 A  |
|--------------------|------|
| Nominal voltage UN | 30 V |

| EAC  | EAC  |
|------|------|
| 2,10 | FMI  |
|      | LIIL |

B.00767

## Accessories

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

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

Seal

Flat gasket - SACC-M16-SEAL CLM - 1430394



M16 flat gasket, for rear mounting of M12 flush-type connectors with M16 fastening thread

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