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Sensor/actuator flush-type plug, 12-pos., M12 SPEEDCON, rear/screw mounting with M16 thread, with 0.5 m TPE litz wire,  $12 \times 0.14 \text{ mm}^2$ 

#### Why buy this product

- ☑ Pre-assembled with litz wires for immediate use
- Sealed on the litz wire side for optimum leak-tightness
- 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



#### **Key Commercial Data**

Packing unit	1 STK
GTIN	4 046356 533553
GTIN	4046356533553
Weight per Piece (excluding packing)	29.700 g
Custom tariff number	85444290
Country of origin	Germany

#### Technical data

#### **Dimensions**

Length of cable	0.5 m
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### 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	
١.	VOIC	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 a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
Rated current at 40°C	1.5 A
Rated voltage	30 V
Rated surge voltage	0.8 kV
Number of positions	12
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Signal type/category	Universal
Status display	No
Overvoltage category	II
Degree of pollution	3
Connection method	Individual wires
Insertion/withdrawal cycles	> 100
Torque	3 Nm 4 Nm (Installation-side)
Mounting type	Rear mounting M16 x 1.5 With flat nut

#### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 66
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	FKM

#### Cable

Cable type	TPE litz wire
Conductor cross section	0.14 mm²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	1.1 mm ±0.05 mm
Thickness, insulation	0.21 mm (Core insulation)
Wire colors	Brown, blue, white, green, pink, yellow, black, gray, red, violet, gray/pink, red/blue
Material conductor insulation	TPE
Conductor material	Tin-plated Cu litz wires
Standards/specifications	M12 connector IEC 61076-2-101
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	≤ 57.6 mΩ/m
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC



#### Technical data

#### Cable

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"

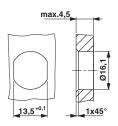
### **Drawings**

#### Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with thread

#### Dimensional drawing



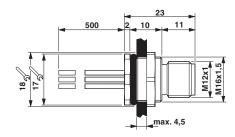
Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with area as anti-rotation protection for panel thicknesses > 2 mm up to max. 4.5 mm)

#### Schematic diagram



Pin assignment M12 male connector, 12-pos., male side view

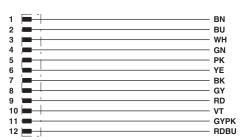
#### Dimensional drawing



M12 flush-type plug



#### Circuit diagram



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	27279220
eCl@ss 7.0	27440103
eCl@ss 8.0	27440103
eCl@ss 9.0	27440102

#### **ETIM**

ETIM 2.0	EC001297
ETIM 3.0	EC002061
ETIM 4.0	EC002061
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**

#### Approvals

Approvals

EAC / UL Recognized / cULus Recognized



### Approvals

Ex Approvals

#### Approval details

UL Recognized	<b>7.1</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 118976		
mm²/AWG/kcmil			26-20	
Nominal current IN			1.5 A	
Nominal voltage UN			30 V	

cULus Recognized	c <b>911</b> us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474-20140616	
mm²/AWG/kcmil			26
Nominal current IN			1.5 A
Nominal voltage UN			30 V

#### 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



#### Accessories

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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