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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,  $12 \times 0.14 \text{ mm}^2$ 

#### Your advantages

- 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 pc
GTIN	4 046356 533553
GTIN	4046356533553
Weight per Piece (excluding packing)	30.000 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)

## Technical data

#### Ambient conditions

	-25 °C 85 °C (Plug / socket)
Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)

#### 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	1.5 A
Rated voltage	30 V
Rated surge voltage	0.8 kV
Number of positions	12
Insulation resistance	$\geq 100 \text{ M}\Omega$
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
Thread type	M16 x 1.5

### 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	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

## Technical data

### Cable

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
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)
	-25 °C 85 °C (cable, flexible installation)

### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
Flammability rating according to UL 94	V0

### **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

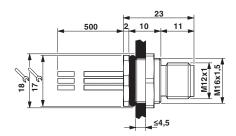
## Drawings

### Schematic diagram



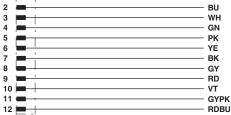
Pin assignment M12 male connector, 12-pos., male side view

### Dimensional drawing



M12 flush-type plug





Circuit diagram

Contact assignment of the M12 plug

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)

## Classifications

## eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 11.0	27440102
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27143400
eCl@ss 6.0	27279200
eCl@ss 7.0	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
UNSPSC 18.0	39121413
UNSPSC 19.0	39121413
UNSPSC 20.0	39121413
UNSPSC 21.0	39121413

## Approvals

### Approvals

Approvals

UL Recognized / EAC / cULus Recognized

Ex Approvals

## Approvals

### Approval details

UL Recognized	http://database.ul.co	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
Nominal voltage UN		30 V	
Nominal current IN		1.5 A	
mm²/AWG/kcmil		26	

EAC [A[	B.01687
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cULus Recognized	c <b>91</b> 0s	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		E221474-20140616
Nominal voltage UN			30 V	
Nominal current IN			1.5 A	
mm²/AWG/kcmil			26	

### 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