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Sensor/actuator flush-type plug, 5-pos., M12, A-coded, front/screw mounting with M20 x 1.5 thread, with 0.5 m TPE litz wire,  $5 \times 0.34$  mm², high-grade steel version

### 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
- MI 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 528719
GTIN	4046356528719

### Technical data

#### **Dimensions**

Length of cable	0.5 m

#### Ambient conditions

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
Degree of protection	IP67

#### General

	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	4 A



# Technical data

## General

Rated voltage	60 V
Rated surge voltage	1.5 kV
Number of positions	5
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
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	Front mounting M20 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	Stainless steel
Sealing material	NBR

### Cable

Cable type	TPE litz wire
Conductor cross section	0.34 mm²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.2 mm ±0.07 mm
Thickness, insulation	0.21 mm
Wire colors	Brown, white, blue, black, gray
Material conductor insulation	TPE
Conductor material	Tin-plated Cu litz wires
Standards/specifications	M12 connector IEC 61076-2-101
Insulation resistance	$\geq 20~\text{M}\Omega^{\star}\text{km}$
Conductor resistance	$\leq$ 57.6 m $\Omega$ /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	
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### Technical data

### Standards and Regulations

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



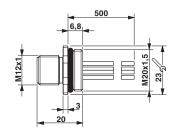
### Schematic diagram



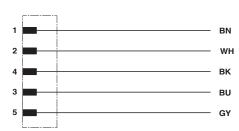
Housing cutout for M20 fastening thread, mounting panel with thread

Pin assignment M12 male connector, 5-pos., A-coded, male side

#### Dimensional drawing



#### Circuit diagram



M12 flush-type plug

Contact assignment of the M12 plug and the M12 socket

## Approvals

# Approvals

Approvals

cULus Recognized / EAC

Ex Approvals

Approval details



# Approvals

cULus Recognized	http://database.u	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474-20140616	
Nominal voltage UN		60 V	
Nominal current IN		4 A	
mm²/AWG/kcmil		22-20	

EAC	B.00767
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