

1419700

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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 x 0.14 mm²

Your advantages

- · 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
- 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



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Commercial Data

Item number	1419700
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	ABQCDG
Catalog Page	Page 49 (C-2-2019)
GTIN	4046356533553
Weight per Piece (including packing)	29.7 g
Weight per Piece (excluding packing)	29.7 g
Customs tariff number	85444290
Country of origin	DE



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Technical Data

Notes

Notes on operation	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.
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Product properties

Product type	Circular connectors (device side)
Number of positions	12
No. of cable outlets	1
Shielded	no
Coding	A - standard
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)
Degree of protection	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
	-25 °C 85 °C (Cable, flexible installation)
	-40 °C 85 °C (cable, fixed installation)

Connector

Insertion/withdrawal cycles	> 100
Header 1	
Head design	Plug
Head thread type	M12
Head locking type	SPEEDCON
Coding	A-coded

Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	30 V
Nominal current I _N	1.5 A



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Material specifications

Flammability rating according to UL 94	V0
Sealing material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Cable gland material	Zinc die-cast, nickel-plated

Connection data

Conductor connection

Connection method	Individual wires
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Mounting

Mounting type	Rear mounting
Assembly instructions	With flat nut

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101

Cable / line

Cable length	0.5 m
Cable structure	
Cable type	TPE litz wire
Signal type/category	Universal
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	7x 0.16 mm
AWG signal line	26

TPE

Thickness, insulation	0.21 mm (Core insulation)
Wire diameter incl. insulation	1.1 mm ±0.05 mm

Single wire, color	Brown, blue, white, green, pink, yellow, black, gray, red, violet,
	gray/pink, red/blue

Electrical properties

Material wire insulation

Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Conductor resistance	≤ 57.6 mΩ/m
Cable insulation resistance	≥ 20 MΩ*km

Ambient conditions		
Ambient temperature (operation)	-25 °C 85 °C (Cable, flexible installation)	



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-40 °C ... 85 °C (cable, fixed installation)

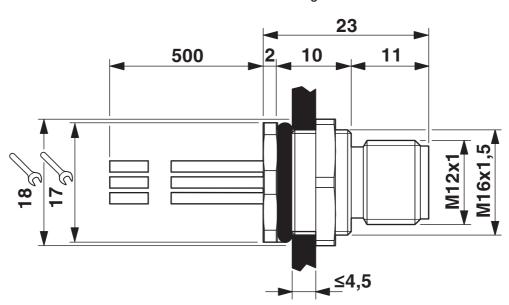


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Drawings

Dimensional drawing



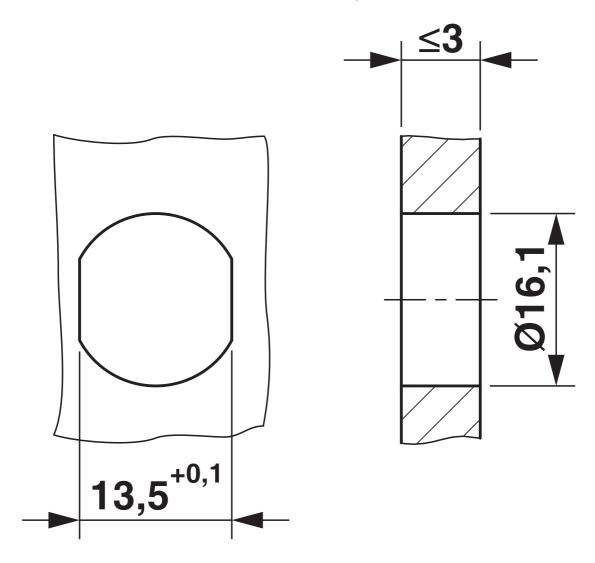
M12 flush-type plug



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Dimensional drawing



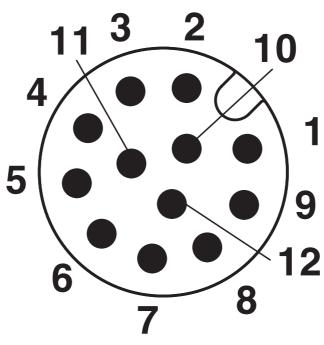
Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with area as anti-rotation protection for panel thicknesses > 2 mm up to max. 4.5 mm)



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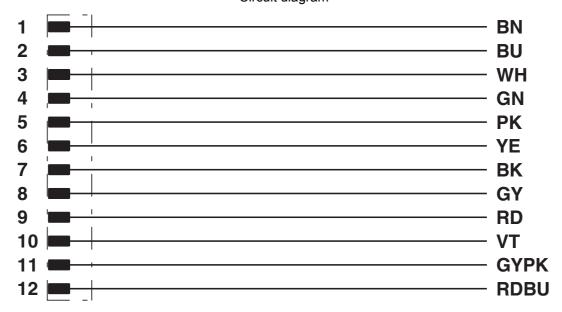
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Schematic diagram



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

Circuit diagram

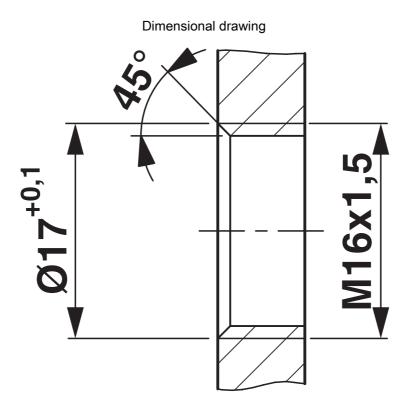


Contact assignment of the M12 plug



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Housing cutout for M16 fastening thread, mounting panel with thread



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Approvals

UL Recognized Approval ID: FILE E 118976					
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		30 V	1.5 A	- 26	-

EHE	EAC
LIIL	Approval ID: B.01687

e 911 us	cULus Recognized Approval ID: E221474-20140616				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		30 V	1.5 A	- 26	-



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Classifications

ECLASS

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	ECLASS-9.0	27440102	
	ECLASS-10.0.1	27440102	
	ECLASS-11.0	27440102	
ETIM			
	ETIM 8.0	EC002635	
UNSPSC			
	UNSPSC 21.0	39121400	



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Environmental Product Compliance

REACh SVHC	Lead 7439-92-1	
China RoHS	Environmentally Friendly Use Period = 50 years	
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"	



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Accessories

Flat gasket

Flat gasket - SACC-M16-SEAL CLM - 1430394 https://www.phoenixcontact.com/pc/products/1430394

M16 flat gasket for M12 flush-type connectors with M16 fastening thread



Sealing cap

Sealing cap - PROT-M12 FS - 1560251 https://www.phoenixcontact.com/pc/products/1560251



M12 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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Sealing cap

Sealing cap - PROT-M12 FS-M - 1430488 https://www.phoenixcontact.com/pc/products/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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