

1419632

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Sensor/actuator flush-type socket, 4-pos., M12 SPEEDCON, rear/screw mounting with M16 thread, with 0.5 m TPE litz wire, $4 \times 0.34 \text{ mm}^2$

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	1419632
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	ABQCDH
Catalog Page	Page 49 (C-2-2019)
GTIN	4046356533485
Weight per Piece (including packing)	23.3 g
Weight per Piece (excluding packing)	23.3 g
Customs tariff number	85444290
Country of origin	DE



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Technical Data

Notes

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.

Safety note

Safety note

WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.

- WARNING: Commission properly functioning products only.
 The products must be regularly inspected for damage.
 Decommission defective products immediately. Replace damaged products. Repairs are not possible.
- WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
- The products are suitable for applications in plant, controller, and electrical device engineering.
- When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
- Assembled products may not be manipulated or improperly opened.
- Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
- When using the product in direct connection with third-party manufacturers, the user is responsible.
- For operating voltages > 50 V AC, conductive connector housings must be grounded
- Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
- Observe the corresponding technical data. You will find information:
- o On the product
- o On the packing label
- o In the supplied documentation
- o Online at phoenixcontact.com/products under the product
- · Only use tools recommended by Phoenix Contact
- Use a protective cap to protect connectors that are not in use.
 The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products



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	 Ensure that the protective or functional ground has been properly connected.
	VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	 The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).
roduct properties	
Product type	Circular connectors (device side)
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A - standard
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3
-	
mbient 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	Socket
Head thread type	M12
Coding	A-coded
lectrical properties	
Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	250 V
Nominal current I _N	4 A



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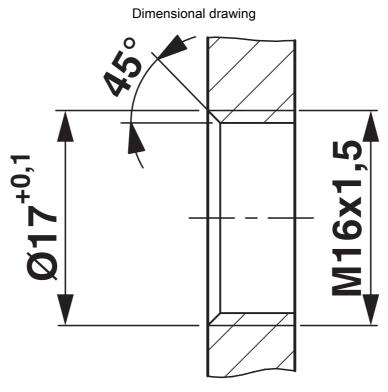
Flammability rating according to UL 94	V0
Sealing material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Cable gland material	Zinc die-cast, nickel-plated
Connection data	
Conductor connection	
Connection method	Individual wires
Mounting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
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 0.25 mm
AWG signal line	22
Material wire insulation	TPE
Thickness, insulation	0.21 mm (Core insulation)
Wire diameter incl. insulation	4.0
	1.2 mm ±0.07 mm
Single wire, color	1.2 mm ±0.07 mm brown, white, blue, black
Single wire, color Electrical properties	
Electrical properties	brown, white, blue, black
Electrical properties Nominal voltage, cable	brown, white, blue, black 300 V
Electrical properties Nominal voltage, cable Test voltage, cable	brown, white, blue, black 300 V 2000 V AC
Electrical properties Nominal voltage, cable Test voltage, cable Conductor resistance Cable insulation resistance	brown, white, blue, black 300 V 2000 V AC ≤ 57.6 mΩ/m
Electrical properties Nominal voltage, cable Test voltage, cable Conductor resistance	brown, white, blue, black 300 V 2000 V AC ≤ 57.6 mΩ/m



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Drawings



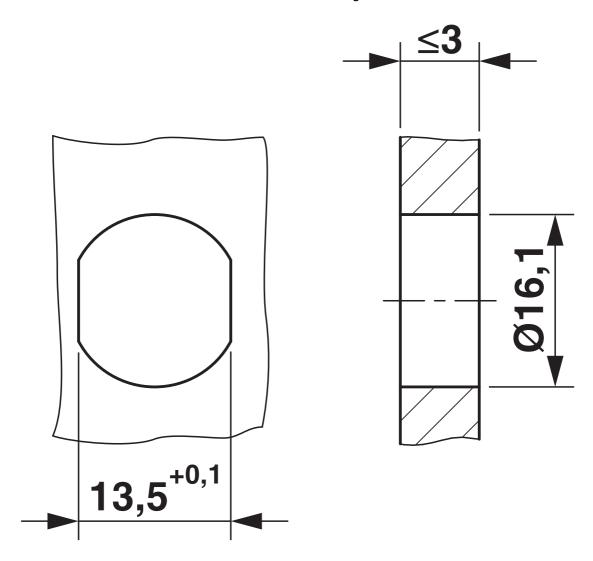
Housing cutout for M16 fastening thread, mounting panel with thread



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Dimensional drawing

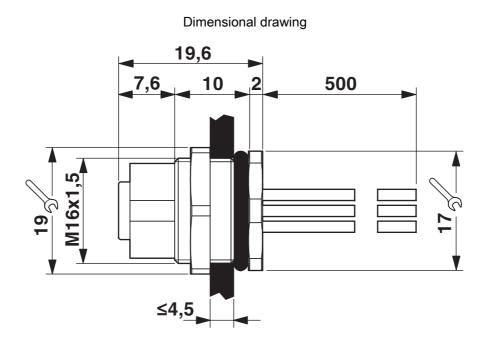


Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with area as anti-rotation protection for panel thicknesses > 2 mm up to max. 4.5 mm)

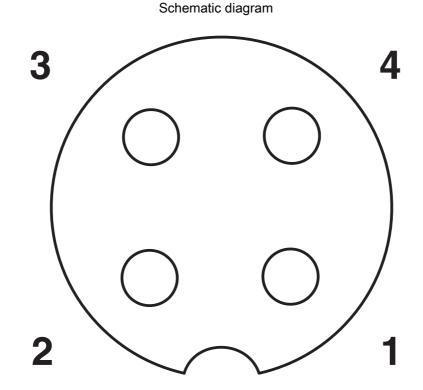


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M12 flush-type socket

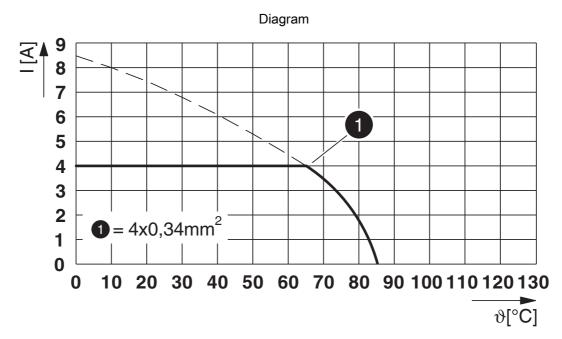


Pin assignment M12 socket, 4-pos., A-coded, view female side



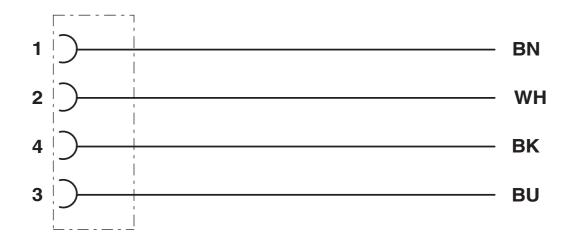
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I = current strength, T = ambient temperature

Circuit diagram



Contact assignment of the M12 socket



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Approvals

CUL Recognized Approval ID: FILE E 118976					
		Nominal Voltage U_N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	4 A	- 22	-

7/1	UL Recognized Approval ID: FILE E 118976				
		Nominal Voltage U_N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	4 A	- 22	-

EAC	EAC
LIIL	Approval ID: B.01687

2 47 0s	cULus Recognized Approval ID: E221474-20140616				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	4 A	22 - 20	-

cULus Recognized



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Classifications

ECLASS

	<i>5</i> L7 (00				
	ECLASS-9.0	27440102			
	ECLASS-10.0.1	27440102			
	ECLASS-11.0	27440102			
ΕΊ	ETIM				
	ETIM 8.0	EC002635			
U	NSPSC				
	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

Screw plug

Screw plug - PROT-M12 - 1680539

https://www.phoenixcontact.com/pc/products/1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

Screw plug

Screw plug - PROT-M12 SH - 1503302

https://www.phoenixcontact.com/pc/products/1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors



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Screw plug

Screw plug - PROT-M12 FB - 1555538 https://www.phoenixcontact.com/pc/products/1555538



M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry

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



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