1671098

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Sensor/Actuator flush-type socket, 5-pos., M12, A-coded, front/screw mounting with Pg9 thread, with 0.5 m TPE litz wire, 5x 0.34 $\rm mm^2$

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

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Commercial Data

Item number	1671098
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	02
Product Key	ABQCDB
Catalog Page	Page 35 (C-2-2019)
GTIN	4017918134945
Weight per Piece (including packing)	22.9 g
Weight per Piece (excluding packing)	22.4 g
Customs tariff number	85366990
Country of origin	DE

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Technical Data

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.
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 an operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicate 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 technica 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: On the product On the packing label In the supplied documentation 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
	 Ensure that the protective or functional ground has been properly connected.



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• 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).

Product properties

Product type	Circular connectors (device side)			
Number of positions	5			
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
Degree of protection	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 cable outlet	straight	
Head thread type	M12	
Coding	A-coded	

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	> 100 MΩ
Nominal voltage U _N	60 V
Nominal current I _N	4 A

Material specifications

Flammability rating according to UL 94	V0
Sealing material	FKM
Contact material	CuZn



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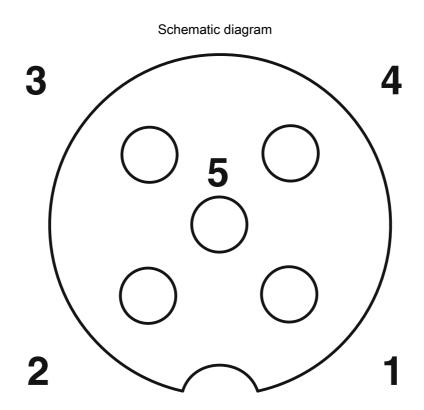
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Contact surface material	Ni/Au
Contact carrier material	PA66
Cable gland material	Zinc die-cast, nickel-plated
Connection data	
Conductor connection	
Connection method	Individual wires
Mounting	
Mounting type	Front mounting Pg9
Standards and regulations	
M12	
Standards/specifications	IEC 61076-2-101
Cable / line	
Cable length	0.5 m
Cable structure	
Cable type	TPE litz wire
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	1.2 mm ±0.07 mm
Single wire, color	Black, brown,blue, white, gray
Electrical properties	
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Conductor resistance	≤ 57.6 Ω/km
Cable insulation resistance	≥ 20 MΩ*km
Ambient conditions	
Ambient temperature (operation)	-25 °C 85 °C (Cable, flexible installation)
	-40 °C 85 °C (cable, fixed installation)



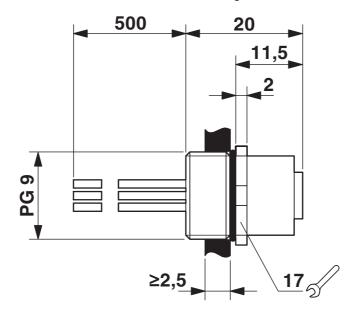
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Drawings



Pin assignment M12 socket, 5-pos., A-coded, socket side view

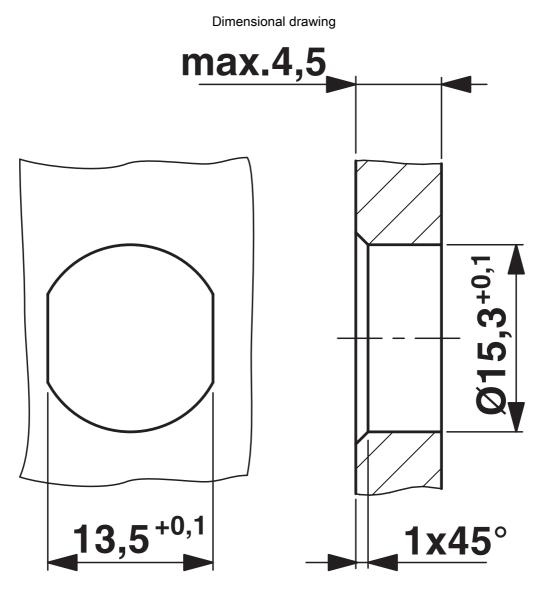
Dimensional drawing



M12 flush-type connector



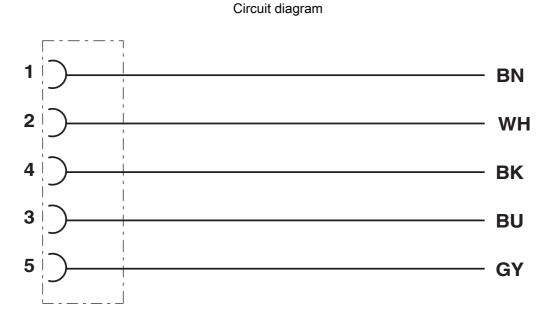
https://www.phoenixcontact.com/pc/products/1671098



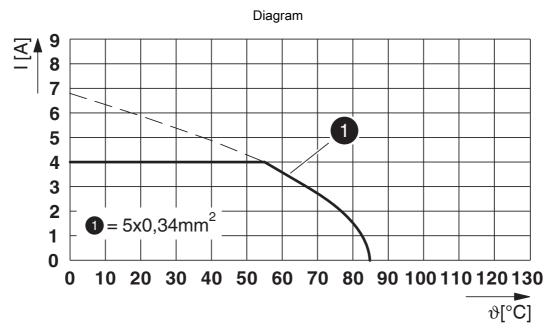
Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)



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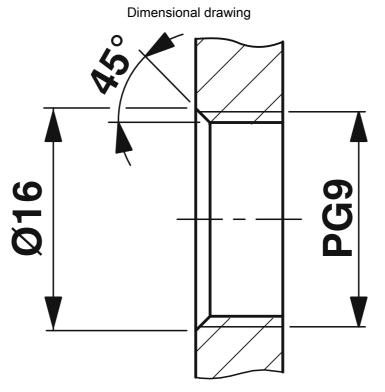
Contact assignment of the M12 plug and the M12 socket



I = current strength, T = ambient temperature



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Housing cutout for Pg9 fastening thread, mounting panel with thread



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Approvals

.91	CUL Recognized Approval ID: FILE E 1189	976			
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		60 V	4 A	- 22	-
91	UL Recognized Approval ID: FILE E 1189	76			
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		60 V	4 A	- 22	-
	EAC Approval ID: B.01687				
c 91 .us	CULus Recognize Approval ID: E221474				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		60 V	4 A	22 - 20	-

cULus Recognized



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Classifications

ECLASS

ECLASS-9.0	27440102
ECLASS-10.0.1	27440102
ECLASS-11.0	27440102

ETIM

	ETIM 8.0	EC002635
UN	ISPSC	
	UNSPSC 21.0	39121400

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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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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-PG9-SEAL CLM - 1556320 https://www.phoenixcontact.com/pc/products/1556320

Pg9 flat gasket, for M12 flush-type connectors with Pg9 fastening thread





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Flat nut

Flat nut - SACC-E-MU-PG9 - 1504084 https://www.phoenixcontact.com/pc/products/1504084

Flat nut with Pg9 thread



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