

1699863

https://www.phoenixcontact.com/pc/products/1699863

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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,  $5 \times 0.34 \text{ mm}^2$ , stainless steel version

### 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
- · For high transmission safety: shield connection to the housing with optional EMC nut



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### **Commercial Data**

Item number	1699863
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	ABQCFB
Catalog Page	Page 268 (C-2-2013)
GTIN	4017918571931
Weight per Piece (including packing)	24.2 g
Weight per Piece (excluding packing)	21.49 g
Customs tariff number	85366990
Country of origin	DE



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#### **Technical Data**

#### Notes

Notes	on	opera	tion
140103	011	opoid	LIOII

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
- Ensure that the protective or functional ground has been properly connected.



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	<ul> <li>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</li> </ul>
	<ul> <li>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).</li> </ul>
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	IP65/IP67/IP69/IP69K
Degree of protection	IP65/IP67/IP69K
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	Cooket
Head design Head cable outlet	Socket
Head thread type	straight M12
Coding	A-coded
	// coded
Electrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	> 100 MΩ
Nominal voltage U <sub>N</sub>	60 V
Nominal current I <sub>N</sub>	4 A
Material specifications	
Flammability rating according to UL 94	VO
Sealing material	FKM
Contact material	CuZn



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Contact surface material	Au
Contact carrier material	PA66 GF
Cable gland material	Stainless steel
Connection data	
Conductor connection	
Connection method	Individual wires
Mounting	
Mounting type	Front mounting, Pg9 thread
Standards and regulations	
M12	
Standards/specifications	IEC 61076-2-101
Cable / line	
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
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)
, and one temperature (operation)	-40 °C 85 °C (cable, fixed installation)
	TO U OF O (cable, lived installation)

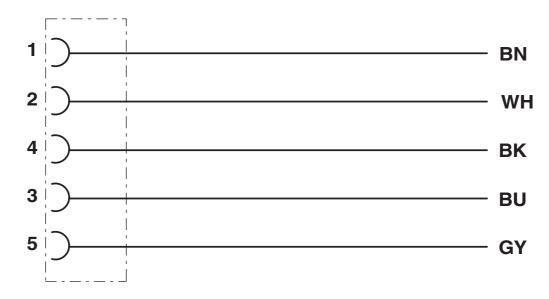


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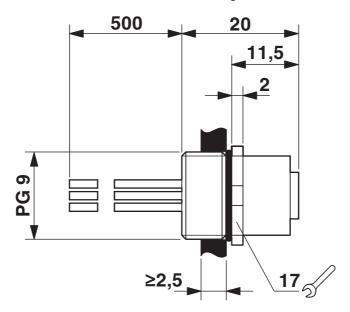
### Drawings

### Circuit diagram



Contact assignment of the M12 plug and the M12 socket

### Dimensional drawing

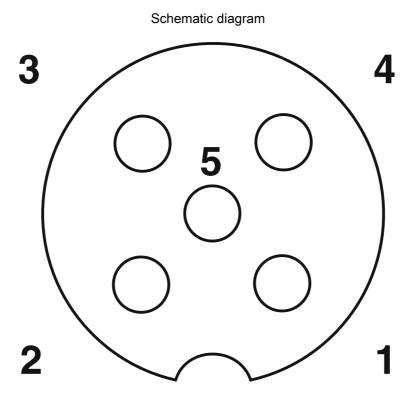


M12 flush-type connector

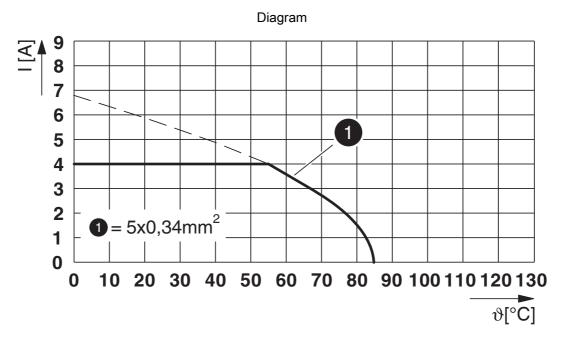


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Pin assignment M12 socket, 5-pos., A-coded, socket side view

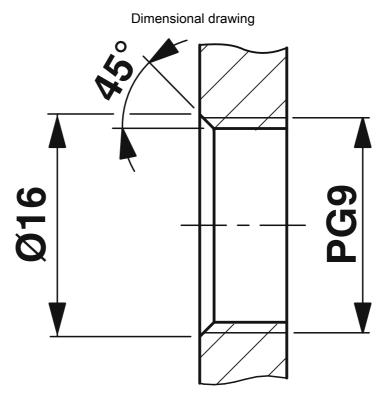


I = current strength, T = ambient temperature



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Housing cutout for Pg9 fastening thread, mounting panel with thread



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### Approvals

. <b>7.1</b>	<b>cUL Recognized</b> Approval ID: FILE E 1189	976			
		Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		60 V	4 A	- 22	-

<i>7</i> .1	<b>UL Recognized</b> Approval ID: FILE E 1189	976			
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		60 V	4 A	- 22	-

EHE	EAC
LIIL	Approval ID: B.01687

c <b>911</b> us	cULus Recognized Approval ID: E221474-20140616				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		60 V	4 A	22 - 20	-

cULus Recognized



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### Classifications

UNSPSC 21.0

### **ECLASS**

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

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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 nut

Flat nut - SACC-PG9-NUT-VA - 1404984 https://www.phoenixcontact.com/pc/products/1404984

Flat nut with Pg9 thread





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### 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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