

1027666

https://www.phoenixcontact.com/us/products/1027666

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Device connector rear mounting, Universal, 5-position, Socket, straight, M12-Push-pull external locking, A-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.34 mm<sup>2</sup>, TPE litz wire, potted, this item is expected to be lead-free from Q1 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

## Your advantages

- · Established M12 standard for secure transmission of signals, data, and power
- · Easy and quick cabling of devices and systems in hard-to-reach areas
- · Manufacturer-independent M12 push-pull locking system for maximum availability
- · Reliable shield connection even under extreme mechanical strain
- · Compatible with connectors with screw or push-in connection

### Commercial data

Item number	1027666
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCCB
GTIN	4055626533384
Weight per piece (including packing)	39.7 g
Weight per piece (excluding packing)	28.774 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.
General	Push-pull external locking
Order information:	Lock nut is included in the scope of delivery
General	Contact connection method: Crimp connection

#### Safety note

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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



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	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.
	<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>
	• 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).
Mounting	
Mounting type	Rear mounting (M16 x 1.5, with flat nut)
Tightening torque	3 Nm 4 Nm (Installation-side)
Product properties	
· ·	Circular connectors (device cide)
Product type	Circular connectors (device side)
Application Sensor type	Signal Universal
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A
Thread type	M12
Insulation characteristics	<u>-</u>
Overvoltage category	III
Degree of pollution	3
Degree of pollution	3
Material specifications	
Material (Housing)	CuZn/Ni
Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	NBR/FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Conductor material	Tin-plated Cu litz wires
Electrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	60 V (AC)



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	60 V (DC)
Nominal current I <sub>N</sub>	4 A
Transmission medium	Copper
Max. conductor resistance	57.6 mΩ/m

### Connection data

#### Conductor connection

Connection method	Individual wires
Contact connection type	Socket
Conductor cross-section	0.34 mm²
Tightening torque	3 Nm 4 Nm (Installation-side)

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100

### Connector

### Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	Push-pull external locking
Coding	A

### Connection 2

Head design free cable end
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### Cable/line

Cable length	0.5 m
Cable type	TPE litz wire
Signal type/category	Universal
Wire diameter incl. insulation	1.2 mm ±0.07 mm
Single wire, color	brown, white, blue, black, gray
Cable cross section	0.34 mm²
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
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Cable resistance	≤ 57.6 mΩ/m



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Cable insulation resistance	≥ 20 MΩ*km
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)
	-25 °C 85 °C (Cable, flexible installation)

## Environmental and real-life conditions

#### Ambient conditions

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

## Standards and regulations

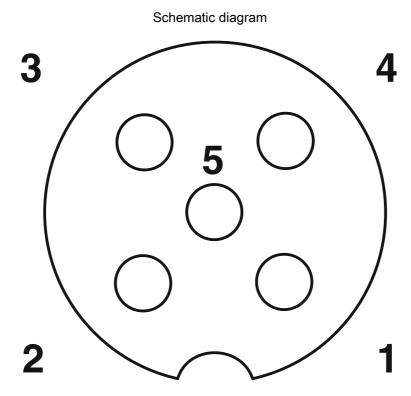
Standard designation	M12 circular connector
Standards/specifications	based on IEC 61076-2-010
Note	Push-pull (type 2)



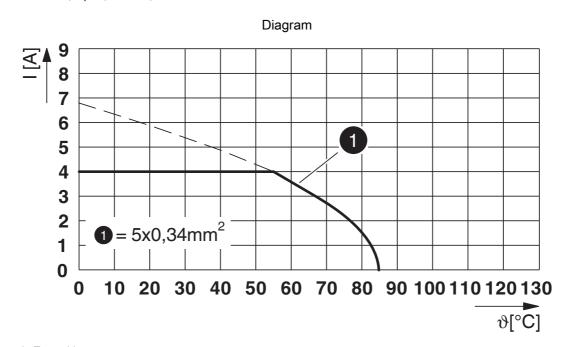
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## Drawings



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



I = current strength, T = ambient temperature



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## Circuit diagram



Contact assignment of the M12 socket



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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1027666

c <b>711</b> vs	cULus Recognized Approval ID: E221474-20140616			
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	60 V	4 A	22 - 20	-



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## Classifications

### **ECLASS**

	ECLASS-13.0	27440103		
	ECLASS-15.0	27440103		
ETIM				
	ETIM 9.0	EC003570		
UNSPSC				
	UNSPSC 21.0	39121400		



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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	738ae250-8c53-4e51-96ff-08f7f28b4868

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