

1027683

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Device connector front mounting, Universal, 5-position, Socket, straight, M12-Push-Pull, coding: A , on free cable end, Front mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 0.34 mm^2 , TPE litz wire

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	1027683
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCBB
Catalog page	Page 36 (C-2-2019)
GTIN	4055626533964
Weight per piece (including packing)	34.7 g
Weight per piece (excluding packing)	25.6 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

General	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
afety 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 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



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section of the product at phoenixcontact.com/products

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

 \bullet 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).

Mounting

Mounting type	Front mounting M16 x 1.5
Connection method	Individual wires

Product properties

Product type	Circular connectors (device side)
Sensor type	Universal
Number of positions	5
Application	Signal
No. of cable outlets	1
Shielded	no
Coding	A
Thread type	M12
Insulation characteristics	
Overvoltage category	II

3

Material specifications

Degree of pollution

Material	Brass, nickel-plated
Flammability rating according to UL 94	VO
Seal material	NBR/FKM
Material of grip body	Brass, nickel-plated
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Brass, nickel-plated
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 _N	60 V (AC)



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	60 V (DC)
Nominal current I _N	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

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
Coding	A
Connection 2	
Head design	free cable end

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
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)
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)
	vironmental and real-life conditions	
	Degree of protection	IP67
		IP65/IP67
	Ambient temperature (operation)	IP65/IP67 -25 °C 85 °C (Plug / socket)
	Ambient temperature (operation)	
	Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)

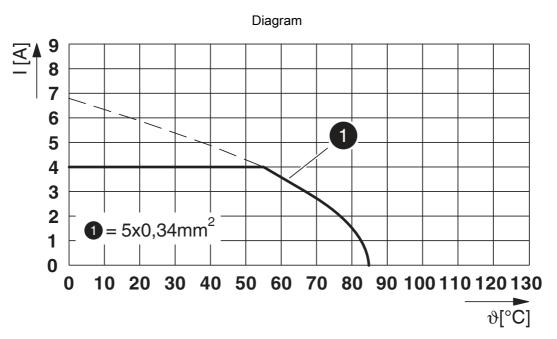
Standards and regulations

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



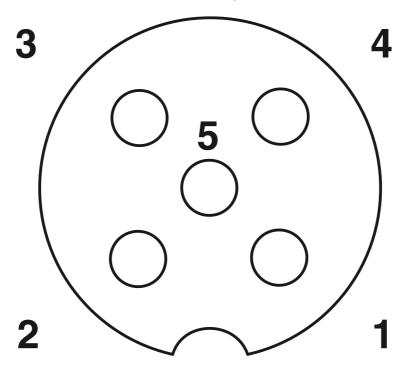
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Drawings



I = current strength, T = ambient temperature

Schematic diagram



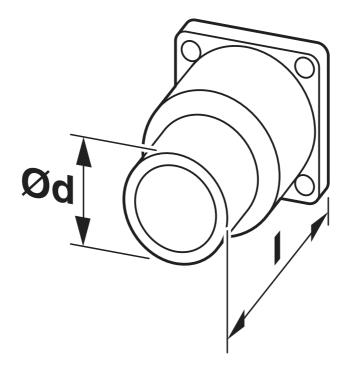
Pin assignment M12 socket, 5-pos., A-coded, socket side view



1027683

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Dimensional drawing



Technical drawings can be found under Downloads

Circuit diagram





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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1027683

EAC	EAC
LIIL	Approval ID: B.01687

c 911 us	CULus Recognized Approval ID: E221474-20140616					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²	
		60 V	4 A	22 - 20	-	



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Classifications

ECLASS

	ECLASS-11.0	27440103		
	ECLASS-12.0	27440103		
	ECLASS-13.0	27440103		
ETIM				
	ETIM 8.0	EC003570		
UNSPSC				
	UNSPSC 21.0	39121400		



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Environmental product compliance

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



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Accessories

SACC-E-MU-M16 - Flat nut

1504097 https://www.phoenixcontact.com/us/products/1504097

Flat nut, Screw mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239863



SACC-M16-SEAL CLM - Flat gasket

1430394 https://www.phoenixcontact.com/us/products/1430394

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





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PROT-M12 - Screw plug

1680539

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



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

PROT-M12 SH - Screw plug

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



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



1027683

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PROT-M12 FB - Screw plug

1555538

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

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