

1699863

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

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Device connector front mounting, Universal, 5-position, Socket, straight, M12-Standard, coding: A, on free cable end, Front mounting, Pg9, Individual wires, cable length: 0.5 m, 0.34 mm², TPE litz wire

Your advantages

- · Preassembled 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

Commercial data

Item number	1699863
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	ABQCUE
Catalog page	Page 268 (C-2-2013)
GTIN	4017918571931
Weight per piece (including packing)	33.8 g
Weight per piece (excluding packing)	21.49 g
Customs tariff number	85366990
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 connecto 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	Contact connection method: Crimp connection
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 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: 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 Pg9

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

Overvoltage category	Ш
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 66 GF
Material for screw connection	Stainless steel
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)
	60 V (DC)
Nominal current I _N	4 A
Max. conductor resistance	57.6 Ω/km



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Connection data

Nominal voltage, cable Test voltage, cable

Cable insulation resistance

Ambient temperature (operation)

Cable resistance

Conductor connection	
Connection method	Individual wires
Contact connection type	Socket
Conductor cross section	0.34 mm ²
Tightening torque	2 Nm 3 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	Standard
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	black, brown,blue, white, gray
Cable cross section	0.34 mm ²
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

300 V

2000 V AC

≤ 57.6 Ω/km

≥ 20 MΩ*km

-40 °C ... 85 °C (cable, fixed installation)

-25 °C ... 85 °C (Cable, flexible installation)



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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65/IP67/IP69/IP69K
	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)

Standards and regulations

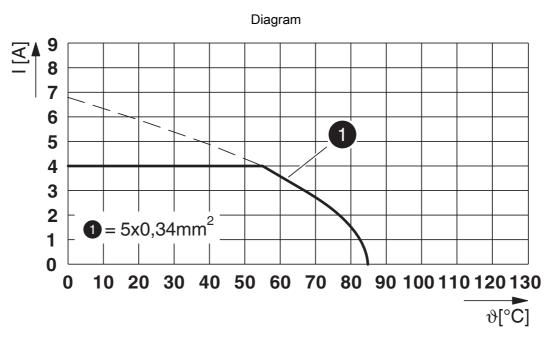
M12				
Standard designation	M12 connector			
Standards/specifications	IEC 61076-2-101			



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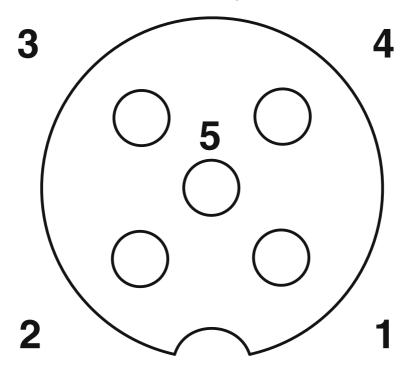
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Drawings



I = current strength, T = ambient temperature

Schematic diagram

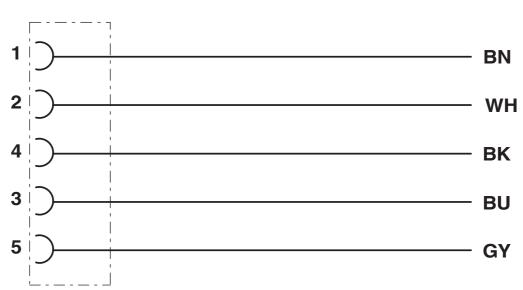


Pin assignment M12 socket, 5-pos., A-coded, socket side view

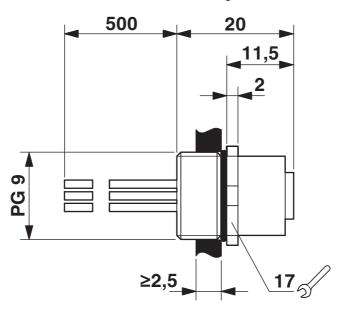


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Dimensional drawing



Dimensional drawing

Circuit diagram



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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/1699863

.91	CUL Recognized Approval ID: E118976-20	1100522			
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	4 A	- 22	-
71	UL Recognized Approval ID: E118976-20	100522			
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	4 A	- 22	-
c 911 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-11.0	27440102			
	ECLASS-12.0	27440116			
	ECLASS-13.0	27440116			
ET	ETIM				
	ETIM 9.0	EC002635			
UNSPSC					
	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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PHOENIX CONTACT GmbH & Co. KG Flachsmarktstraße 8 D-32825 Blomberg +49 (0) 5235-3 00 info@phoenixcontact.com