

1554681

https://www.phoenixcontact.com/us/products/1554681

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

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
- Standard pin assignments and codings for signal transmission with a uniform design-in design
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1554681
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCWE
GTIN	4046356170383
Weight per piece (including packing)	36.2 g
Weight per piece (excluding packing)	24.35 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.
Order information:	Lock nut is included in the scope of delivery
General	Contact connection method: Crimp connection

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.



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	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. 	
	 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	Rear mounting (Pg9, with locking nut)	
Tightening torque	2 Nm 3 Nm (Installation-side)	
Draduat proportion		
Product properties	O'co be a considered to the total	
Product type	Circular connectors (device side)	
Application	Signal	
Sensor type	Universal	
Number of positions	5	
No. of cable outlets	1	
Shielded	no	
Coding	A	
Thread type	M12	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	
Material specifications		
Material Housing	V4A	
Material Insulating body	PA 6.6	
Material Contact	CuZn	
Material Contact surface	Au	
Material Seal	FKM	
Material Molding compound	PUR (potted)	
Flammability rating according to UL 94	V0	
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)	
V N	60 V (DC)	
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Nominal current I _N	4 A
Max. conductor resistance	57.6 mΩ/m

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Pin
Conductor cross-section	0.34 mm²
Tightening torque	2 Nm 3 Nm (Installation-side)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100
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Connector

Connection 1

Head design	Pin
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
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	black, brown,blue, white, 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	
Cable insulation resistance	≥ 20 MΩ*km	
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)	



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Standard designation

Standards/specifications

	-25 °C 85 °C (Cable, flexible installation)
ironmental and real-life conditions	
mbient conditions	
Degree of protection	IP65/IP67/IP69/IP69K
	IP69K
	IP65/IP67/IP69K
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)
UL Type Rating	Type 4 (indoor use only)

M12 circular connector

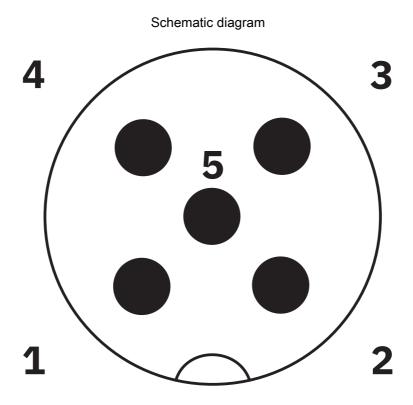
according to IEC 61076-2-101



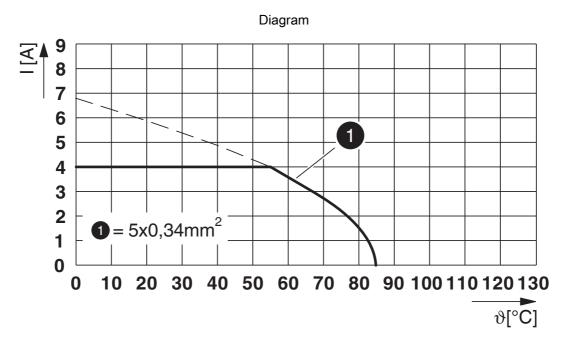
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Drawings



Pin assignment M12 male connector, 5-pos., A-coded, male side



I = current strength, T = ambient temperature



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Circuit diagram



Contact assignment of the M12 plug and the M12 socket



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1554681

cUL Recognized Approval ID: E118976-20100522					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		60 V	4 A	22	-

7.1	UL Recognized Approval ID: E118976-20100522				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		60 V	4 A	22	-

e 911 us	CULus Recognized Approval ID: E221474-20140616				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
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		
U	NSPSC			
	UNSPSC 21.0	39121400		



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com