

1401206

https://www.phoenixcontact.com/us/products/1401206

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Device connector front mounting, Universal, 4-position, Socket, straight, M12-Standard, coding: A, on free cable end, Front mounting, Pg9, Individual wires, cable length: 1 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
- All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1401206	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Product key	ABQCUE	
GTIN	4046356538220	
Weight per piece (including packing)	39.6 g	
Weight per piece (excluding packing)	28.3 g	
Country of origin	DE	



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Technical data

Notes

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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	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 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 appropriate are profible and the connectors. The suitable appropriate are profible and the connectors.

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. 	
	 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)	
Application	Signal	
Sensor type	Universal	
Number of positions	4	
No. of cable outlets	1	
Shielded	no	
Coding	A	
Thread type	M12	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	
Material specifications		
Flammability rating according to UL 94	V0	
Seal material	FKM	
Contact material	CuZn	
Contact surface material	Ni/Au	
Contact carrier material	PA 66	
Material for screw connection	Stainless steel	
Conductor material	Tin-plated Cu litz wires	
Electrical properties		
Rated surge voltage	2.5 kV AC	
Contact resistance	≤ 3 mΩ	
Insulation resistance	≥ 100 MΩ	
Nominal voltage U _N	250 V (AC)	
- 14	250 V (DC)	
Nominal current I _N	4 A	
Max. conductor resistance	57.6 Ω/km	



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Connection data

Conductor connection

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

Mechanical properties

Mechanical data

Insertion/witndrawai cycles 2 100	Insertion/withdrawal cycles	≥ 100
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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
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Cable/line

Cable length	1 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		
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 (Core insulation)		
Nominal voltage, cable	300 V		
Test voltage, cable	2000 V AC		
Cable resistance	≤ 57.6 Ω/km		
Cable insulation resistance	≥ 20 MΩ*km		
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)		
	-25 °C 85 °C		



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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
	IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
	-25 °C 85 °C
	-40 °C 85 °C (cable, fixed installation)

Standards and regulations

M12

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

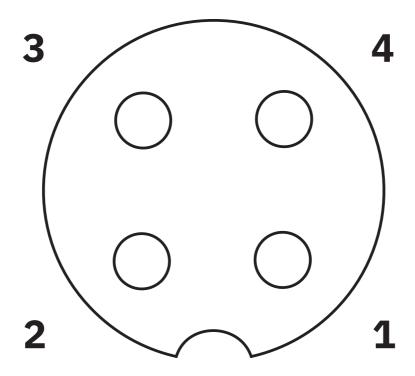


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Drawings

Schematic diagram



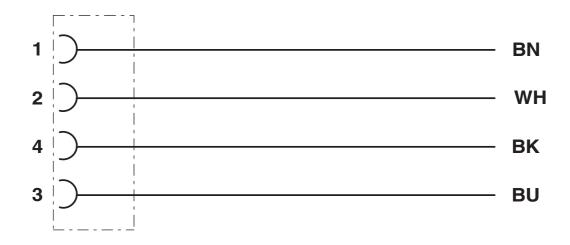
Pin assignment M12 socket, 4-pos., A-coded, view female side

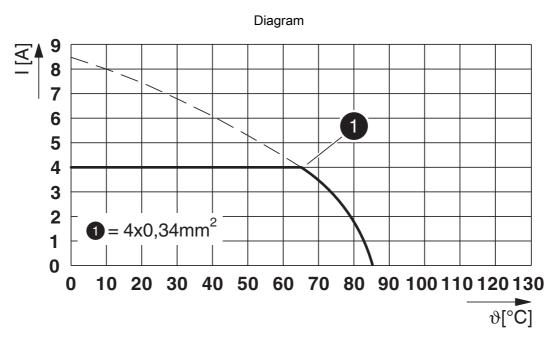


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Circuit diagram





I = current strength, T = ambient temperature



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1401206

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

CUL Recognized Approval ID: E118976-20100522					
		Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	4 A	22 - 22	-

cULus Recognized



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Classifications

ECLASS

201.00			
	ECLASS-11.0	27440102	
	ECLASS-12.0	27440116	
	ECLASS-13.0	27440116	
ETIM			
	ETIM 9.0	EC002635	
UNSPSC			
	UNSPSC 21.0	39121400	



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Environmental product compliance

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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