

1503276

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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 mm<sup>2</sup>, 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
- 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	1503276
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCFE
GTIN	4017918846633
Weight per piece (including packing)	38.1 g
Weight per piece (excluding packing)	27.948 g
Customs tariff number	85444290
Country of origin	DE



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#### Technical data

#### Notes

otes	
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
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.
	<ul> <li>WARNING: Commission properly functioning products only.</li> <li>The products must be regularly inspected for damage.</li> <li>Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>
	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.
	<ul> <li>The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>
	<ul> <li>When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>
	<ul> <li>Assembled products may not be manipulated or improperly opened.</li> </ul>
	<ul> <li>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).</li> </ul>
	<ul> <li>When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>
	<ul> <li>For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	<ul> <li>Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>
	Observe the corresponding technical data. You will find information: On the product On the packing label In the supplied documentation 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.

The suitable accessories are available online in the accessory



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	section of the product at phoenixcontact.com/products
	<ul> <li>Ensure that the protective or functional ground has been properly connected.</li> </ul>
	<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>
	<ul> <li>The connector warms up in normal operation. Depending on th 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).</li> </ul>
ounting	
Mounting type	Front mounting Pg9
oduct 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
aterial specifications	
Material Molding compound	PUR (potted)
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	Zinc die-cast, nickel-plated
Conductor material	Tin-plated Cu litz wires
ectrical properties	
Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V (AC)
	· ,
	250 V (DC)



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Max. conductor resistance	57.6 Ω/km
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/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	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) (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
Ambient temperature (operation) (Cable, fixed installation)	-40 °C 85 °C (cable, fixed installation)
UL Type Rating	Type 4 (indoor use only)

### Standards and regulations

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

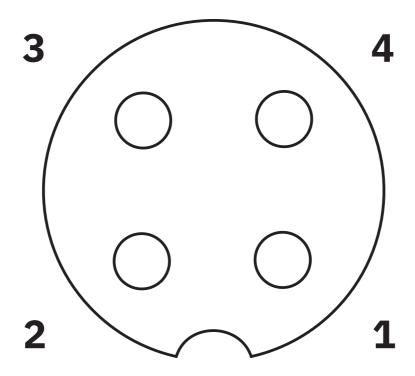


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### Drawings

### Schematic diagram

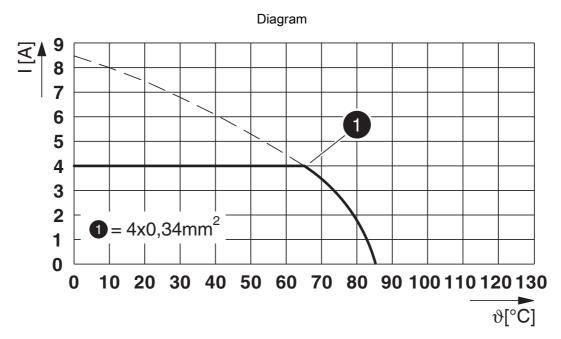


Pin assignment M12 socket, 4-pos., A-coded, view female side



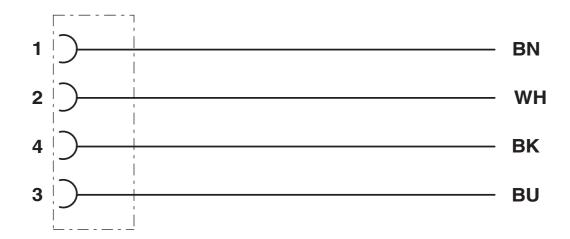
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I = current strength, T = ambient temperature

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/1503276

cUL Recognized Approval ID: E118976-20100522					
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		250 V	4 A	22	-

UL Recognized Approval ID: E118976-20100522					
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		250 V	4 A	22	-

cULus Recognized Approval ID: E221474-20140616					
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		250 V	4 A	22 - 20	-



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### Classifications

ECLASS		
	ECLASS-13.0	27440103
E	ТІМ	
	ETIM 9.0	EC003570
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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