

1413178

https://www.phoenixcontact.com/us/products/1413178

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Device connector rear mounting, 5-position, Pin, straight, M12, B-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.34 mm<sup>2</sup>, potted, this item is expected to be lead-free from Q1 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

### Commercial data

Item number	1413178
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCGB
GTIN	4046356991346
Weight per piece (including packing)	42.6 g
Weight per piece (excluding packing)	30.172 g
Customs tariff number	85444290
Country of origin	DE



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### Technical data

#### Notes

Order information:	Lock nut is included in the scope of delivery
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.
	<ul> <li>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.     </li> </ul>
	<ul> <li>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.</li> </ul>
	<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
	<ul> <li>Use a protective cap to protect connectors that are not in use.</li> <li>The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products</li> </ul>
	<ul> <li>Ensure that the protective or functional ground has been properly connected.</li> </ul>
	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



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	connector
	<ul> <li>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).</li> </ul>
Mounting	
Mounting type	Rear mounting (M16 x 1,5)
Product properties	
Product type	Circular connectors (device side)
Application	Signal
Number of positions	5
Coding	В
Thread type	M12
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3
Material specifications	
	DUD (setted)
Material Molding compound  Material wire insulation	PUR (potted) TPE
Conductor material	Tin-plated Cu litz wires
Conductor material	Tiri-plated Cu litz wires
Electrical properties	
Rated surge voltage	1.5 kV AC
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	60 V
Nominal current I <sub>N</sub>	4 A
Connection data	
Conductor connection	
Connection method	Individual wires
Contact connection type	Pin
Conductor cross-section	0.34 mm <sup>2</sup>
Mechanical properties	
• •	
Mechanical data	. 400
Insertion/withdrawal cycles	> 100

#### Connector



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#### Connection 1

Head design	Pin
Head cable outlet	straight
Head thread type	M12
Coding	В

#### Connection 2

Head design	free cable end
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#### Cable/line

Cable length	0.5 m
Wire diameter incl. insulation	1.2 mm ±0.07 mm
Single wire, color	brown, white, blue, black, 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

### Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)
	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C
UL Type Rating	Type 4 (indoor use only)

### Standards and regulations

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

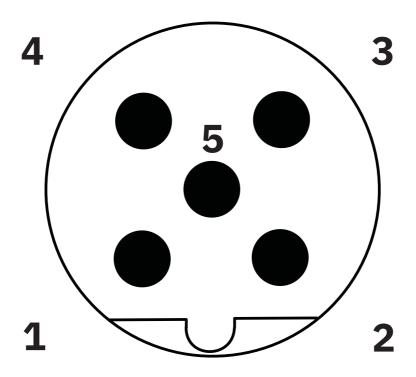


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## Drawings

Schematic diagram



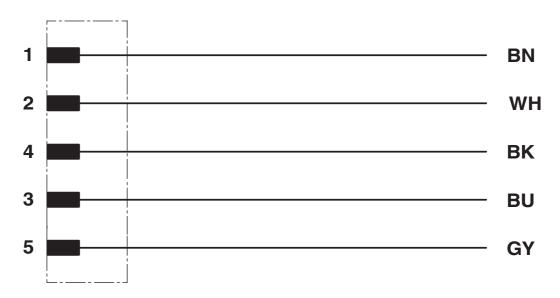
Pin assignment M12 male connector, 5-pos., B-coded, male side



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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/1413178

. <b>9</b> 1	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>
keine					
		60 V	4 A	22	-

71	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>
keine					
		60 V	4 A	22	-

e <b>711</b> vs	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>
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	
UNSPSC			
	UNSPSC 21.0	39121400	



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### Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	9a492313-bca8-4117-abb6-eb952e95c111

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