

1520000

https://www.phoenixcontact.com/pc/products/1520000

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Device connector front mounting, Universal, 5-position, Socket, straight, M12-SPEEDCON, coding: B, on free cable end, Front mounting, M16  $\times$  1.5, Individual wires, cable length: 0.5 m, 0.  $34 \text{ mm}^2$ , 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
- · SPEEDCON fast locking system reduces cabling times

#### Commercial data

Item number	1520000		
Packing unit	1 pc		
Minimum order quantity	1 pc		
Product key	ABQCFB		
Catalog page	Page 37 (C-2-2019)		
GTIN	4046356020091		
Weight per piece (including packing)	32.2 g		
Weight per piece (excluding packing)	23.2 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>	
	When operating the connectors in outdoor applications, they must be separately protected against environmental influences.	
	Assembled products may not be manipulated or improperly opened.	
	<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	
	. He a protective can to protect connectors that are not in use	

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
	<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 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>
ounting	
Mounting type	Front mounting M16 x 1.5
roduct properties	
Product type	Circular connectors (device side)
Application	Signal
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	В
Thread type	M12
Data management status	
Article revision	12
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3
aterial specifications	
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Tin-plated Cu litz wires
ectrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
modication registation	
Nominal voltage U <sub>N</sub>	60 V (AC)



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Nominal current I <sub>N</sub>	4 A	
Max. conductor resistance	57.6 mΩ/m	

#### Connection data

#### Conductor connection

Connection method	Individual wires	
Contact connection type	Socket	
Conductor cross section	0.34 mm²	
Tightening torque	3 Nm 4 Nm (Installation-side)	

#### Mechanical properties

#### Mechanical data

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	SPEEDCON
Coding	В

### Connection 2

#### 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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Standards/specifications

		-25 °C 85 °C (Cable, flexible installation)
Er	vironmental and real-life conditions	
	Ambient conditions	
	Degree of protection	IP67
		IP65/IP67
	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)
St	andards and regulations	
	M12	
	Standard designation	M12 connector

IEC 61076-2-101

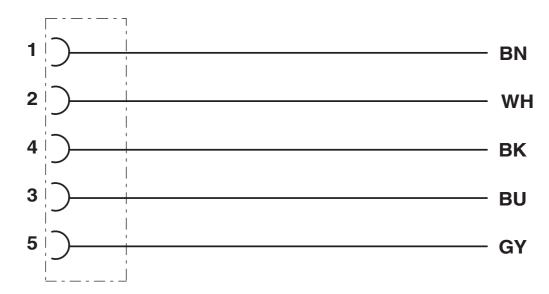


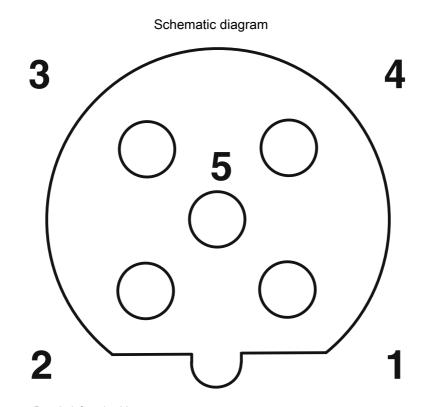
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### Drawings

### Circuit diagram



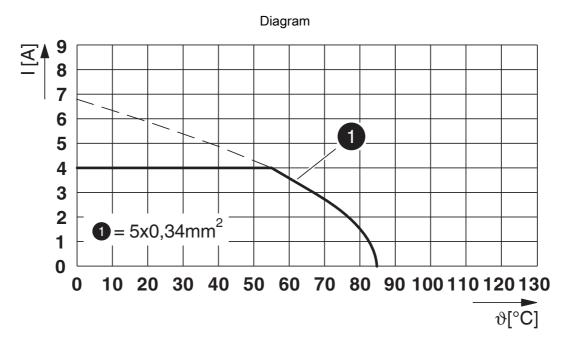


Pin assignment M12 socket, 5-pos., B-coded, female side



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I = current strength, T = ambient temperature



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### Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/1520000

c <b>911</b> us	cULus Recognized Approval ID: E221474-20140616				
		Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	4 A	22 - 20	-

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



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### Classifications

#### **ECLASS**

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	ECLASS-11.0	27440102	
	ECLASS-12.0	27440116	
	ECLASS-13.0	27440116	
ETIM			
	ETIM 9.0	EC002635	
UNSPSC			

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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