

1411580

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Device connector front mounting, Universal, 5-position, Pin, straight, M12-Standard, coding: B, on free cable end, Front mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 0.34 mm², TPE litz wire

Your advantages

- · Easy-to-install, optimized XL housing contour with wrench size 19
- · Mechanical tightening limitation for long-term-stable gasket
- · 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	1411580
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCEB
Catalog page	Page 39 (C-2-2019)
GTIN	4046356935432
Weight per piece (including packing)	33.1 g
Weight per piece (excluding packing)	23.7 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.
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. 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.

 \bullet 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 M16 x 1.5 XL version, tightening limitation
Assembly note	XL version, tightening limitation

Product properties

Circular connectors (device side)
Signal
Universal
5
1
no
В
M12
08
I
3
V0
FKM
CuZn
Au
PA 6.6
Zinc die-cast, nickel-plated
Tin-plated Cu litz wires
Tin-plated Cu litz wires

Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	60 V (AC)



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	60 V (DC)
Nominal current I	4 A
Nominal current I _N Max. conductor resistance	57.6 mΩ/m
	57.6 11(2/11)
Connection data	
Conductor connection	
Connection method	Individual wires
Contact connection type	Pin
Conductor cross section	0.34 mm ²
Tightening torque	0.8 Nm 1.3 Nm (Installation-side)
Mechanical properties	
Mechanical data	
Insertion/withdrawal cycles	> 100
Connector	
Connection 1	
Head design	Pin
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	В
Connection 2	
Head design	free cable end
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 mm ²
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



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Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)	
	-25 °C 85 °C (Cable, flexible installation)	

Environmental 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)	

Standards and regulations

M12

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



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Drawings



Circuit diagram

I = current strength, T = ambient temperature



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Schematic diagram



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



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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411580

e 911 us	cULus Recognized Approval ID: E221474-20140616				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group keine					
		60 V	4 A	22 - 20	-



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Classifications

ECLASS

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