

1419328

https://www.phoenixcontact.com/au/products/1419328

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Device connector rear mounting, Universal, 5-position, PUR halogen-free, black-gray RAL 7021, shielded, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 1 m, 0.34 mm², PUR halogen-free black, this item is expected to be lead-free from Q2 2026 in accordance with RoHS II without exception 6c (Pb < 0. 1%), a lead-free alternative is possible on request in advance

Your advantages

- · Preassembled with cables in various standard lengths for immediate use
- · Customer-specific assemblies and cable lengths can be supplied
- · Sealed on the cable side for optimum tightness of seal
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1419328
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	ABQDGG
Product key	ABQDGG
Catalog page	Page 51 (C-2-2019)
GTIN	4046356533294
Weight per piece (including packing)	76.8 g
Weight per piece (excluding packing)	60.653 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

0100	
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.
Order information:	Lock nut is included in the scope of delivery
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 o 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	Rear mounting M16 x 1.5 With flat nut
Assembly note	With flat nut

Product properties

Insulation characteristics	
Overvoltage category	П
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	60 V
Nominal current I _N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Max. conductor resistance	57 Ω/km



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Connection data

Conductor co	onnection
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Connection method	Cable connection
Contact connection type	Socket
Conductor cross section	5x 0.34 mm² (Signal line)
Tightening torque	2 Nm 3 Nm (Installation-side)

Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	> 100
Max. bending cycles	1000000

Connector

Connection 1		
Head design	Socket	
Head cable outlet	straight	
Head thread type	M12	
Head locking type	SPEEDCON	
Coding	A	
Connection 2		
Head design	free cable end	

Cable/line

Cable length	1 m
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PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	43 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	5
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm



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AWG signal line	22	
Conductor cross section	5x 0.34 mm² (Signal line)	
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)	
External cable diameter	5.25 mm ±0.2 mm	
Outer sheath, material	PUR	
External sheath, color	black-gray RAL 7021	
Conductor material	Bare Cu litz wires	
Material wire insulation	PP	
Single wire, color	brown, white, blue, black, gray	
Thickness, insulation	≥ 0.21 mm	
Thickness, outer sheath	approx. 0.50 mm	
Overall twist	5 wires around filler to the core	
Optical shield covering	80 %	
Max. conductor resistance	max. 57 Ω/km (at 20 °C)	
Insulation resistance	70 GΩ*km (at 20 °C)	
Nominal voltage, cable	300 V (at 20 °C)	
Test voltage Core/Core	3000 V (at 20 °C)	
Smallest bending radius, fixed installation	26 mm	
Smallest bending radius, movable installation	52 mm (up to +60 °C)	
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 52 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²	
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.	
Halogen-free	in accordance with DIN VDE 0472 part 815	
	in accordance with DIN EN 50267-2-1	
Flame resistance	in accordance with UL 758/1581 FT2	
	DIN EN 60332-2-2 (20 s)	
Resistance to oil	in accordance with DIN EN 60811-2-1	
Other resistance	Highly resistant to acids, alkaline solutions and solvents	
	hydrolysis and microbe resistant	
	Resistant to salt water	
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)	
	abrasion-resistant	
Special properties	Flexible cable conduit capable	
	Silicone-free	
	Free of substances which would hinder coating with paint or varnish	
	Low adhesion surface	
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)	
	-25 °C 80 °C (Cable, flexible installation)	

Environmental and real-life conditions



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Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)
	IP65/IP67
Ambient temperature (operation) (male connector/female	-25 °C 85 °C (Plug / socket)
connector)	-40 °C 85 °C (without mechanical actuation)
UL Type Rating	Type 4 (indoor use only)
Standards and regulations	

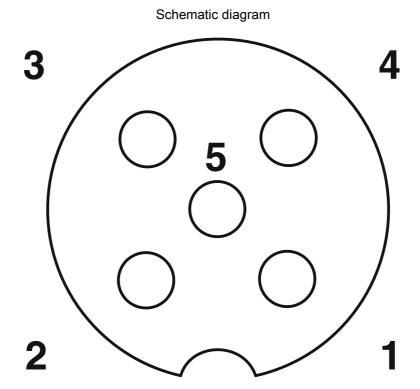
Standard designation	M12 circular connector	
Standards/specifications	according to IEC 61076-2-101	



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Drawings



Pin assignment M12 socket, 5-pos., A-coded, socket side view

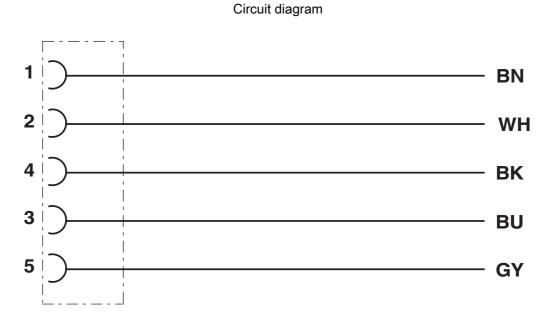
Diagram 9 8 7 6 1 5 4 3 2 $1 = 5x0,34mm^2$ 1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 0 ϑ[°C]

I = current strength, T = ambient temperature



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Contact assignment of the M12 socket



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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/au/products/1419328

. R .	CUL Recognized Approval ID: E221474-20220907				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	1.5 A	-	-

71	UL Recognized Approval ID: E221474-20220907				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 V	4 A	-	-



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Classifications

ECLASS			
ECLASS-13.0	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 "Manufacture 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	b4b2faf8-1014-427f-bfbe-5fccf2861fc1

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