

1419315

https://www.phoenixcontact.com/pc/products/1419315

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Device connector, rear mounting, Universal, 4-position, PUR, black-gray RAL 7021, Flush-type female connector, straight, M12-SPEEDCON, A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 2 m, PUR halogen-free black item no.: 1239246

### Your advantages

- · Pre-assembled 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	1419315
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	ABQCED
Catalog Page	Page 51 (C-2-2019)
GTIN	4046356533270
Weight per Piece (including packing)	107.5 g
Weight per Piece (excluding packing)	96.4 g
Customs tariff number	85444290
Country of origin	DE



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#### **Technical Data**

#### Notes

Notes on o	operation
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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.

#### 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 section of the product at phoenixcontact.com/products



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	<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. are applicable when combining several circuits in a cable and/o connector</li> </ul>
	<ul> <li>The connector warms up in normal operation. Depending on tambient conditions, the surface of the connector can continue twarm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul>
lounting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly instructions	With flat nut
roduct properties	
Product type	Circular connectors (device side)
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A - standard
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3
Material specifications	1/0
Flammability rating according to UL 94	V0
Sealing material	FKM
Contact ourfees material	CuZn
Contact surface material	Au PA 6.6
Contact carrier material  Material for screw connection	Zinc die-cast, nickel-plated
	Zinc die-cast, moker-plated
Electrical properties	
Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V
Nominal current I <sub>N</sub>	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Connection data	
Conductor connection	
Connection method	Cable connection



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Type of contact	Crimp contacts
Tightening torque	3 Nm
	4 Nm

### Connector

#### Connection 1

Head design	Flush-type female connector
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	A

#### Connection 2

Head design	free cable end

### Cable / line

### PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	36 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
External cable diameter	4.95 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
Thickness, insulation	≥ 0.21 mm



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hickness, outer sheath	approx. 0.5 mm
Overall twist	4 wires, twisted
Optical shield covering	80 %
Max. conductor resistance	max. 58 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Wave impedance	≥ 62 Ω (f = 10 MHz)
Cable capacity	≤ 80 pF/m (Conductor-Conductor)
	≤ 135 pF/m (Wire/shield)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	10000000
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)

### Ambient conditions

IP67 (When plugged in)
IP65 (When plugged in)
IP65/IP67
-25 °C 85 °C (Plug / socket)
-40 °C 85 °C (without mechanical actuation)

### Standards and regulations

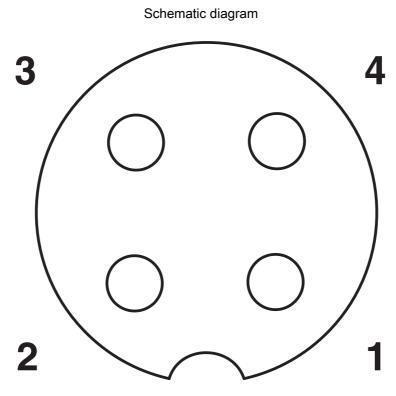
Standards/specifications	IEC 61076-2-101



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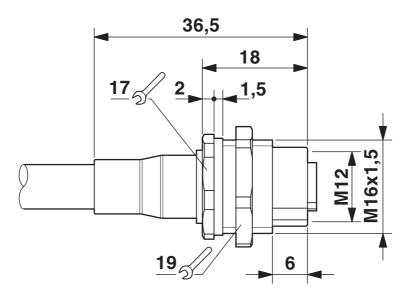
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## Drawings



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

### Dimensional drawing



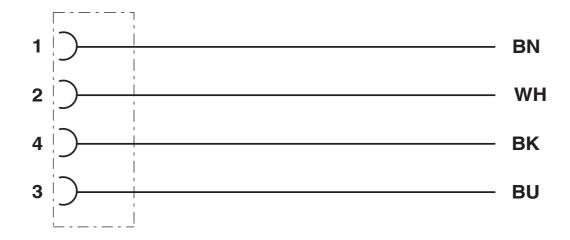
M12 flush-type connector



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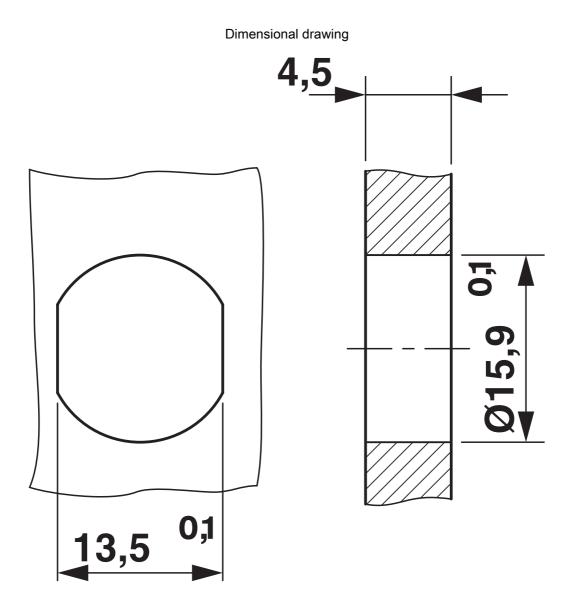
### Circuit diagram





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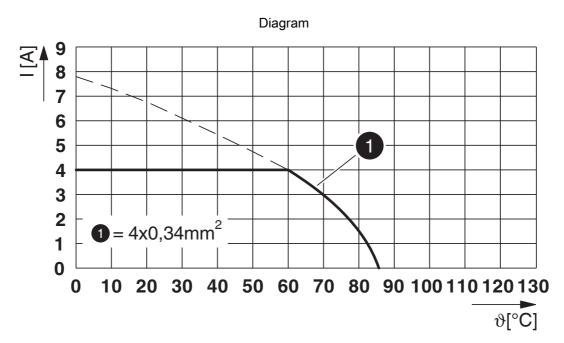


Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)



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I = current strength, T = ambient temperature



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### Approvals

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EAC

Approval ID: B.01687

. <b>51</b> 2	cUL Recognized Approval ID: E221474-20220908					
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>	
		250 V	1.5 A	-	-	

<b>7/</b>	UL Recognized Approval ID: E221474-20220908					
		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	-	-	

cULus Recognized



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### Classifications

### **ECLASS**

	ECLASS-9.0	27440102		
	ECLASS-10.0.1	27440102		
	ECLASS-11.0	27440103		
ETIM				
	ETIM 8.0	EC003570		
UNSPSC				
	UNSPSC 21.0	39121400		



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## **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



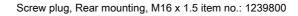
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### Accessories

### Screw plug

Screw plug - SACC-M16-SEALING PLUG SET - 1453368 https://www.phoenixcontact.com/pc/products/1453368





### Screw plug

Screw plug - PROT-M12 - 1680539 https://www.phoenixcontact.com/pc/products/1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors



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### Screw plug

Screw plug - PROT-M12 SH - 1503302

https://www.phoenixcontact.com/pc/products/1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

### Screw plug

Screw plug - PROT-M12 FB - 1555538

https://www.phoenixcontact.com/pc/products/1555538



M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry



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#### Flat gasket

Flat gasket - SACC-M16-SEAL CLM - 1430394 https://www.phoenixcontact.com/pc/products/1430394

M16 flat gasket for M12 flush-type connectors with M16 fastening thread



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