

1419315

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

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Device connector rear mounting, Universal, 4-position, PUR, black-gray RAL 7021, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 2 m, PUR halogen-free black, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239246

### 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	1419315
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGG
Catalog page	Page 51 (C-2-2019)
GTIN	4046356533270
Weight per piece (including packing)	112 g
Weight per piece (excluding packing)	96.4 g
Customs tariff number	85444290
Country of origin	DE



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### Technical data

#### Notes

otes	
General	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	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.
	<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>
	<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

• 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.</li> <li>are applicable when combining several circuits in a cable and/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>
punting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly instructions	With flat nut
oduct properties	
Product type	Circular connectors (device side)
Sensor type	Universal
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12
	M12
nsulation characteristics	
nsulation characteristics  Overvoltage category	M12  II  3
nsulation characteristics	П
nsulation characteristics  Overvoltage category	П
nsulation characteristics  Overvoltage category  Degree of pollution	П
nsulation characteristics  Overvoltage category  Degree of pollution  aterial specifications	II 3
nsulation characteristics  Overvoltage category  Degree of pollution  aterial specifications  Material	II 3 Brass, nickel-plated
nsulation characteristics  Overvoltage category  Degree of pollution  Atterial specifications  Material  Flammability rating according to UL 94	II 3 Brass, nickel-plated V0
nsulation characteristics  Overvoltage category  Degree of pollution  aterial specifications  Material  Flammability rating according to UL 94  Seal material	II 3  Brass, nickel-plated  V0  FKM
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material	II 3 Brass, nickel-plated V0 FKM CuZn
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material	II 3 Brass, nickel-plated V0 FKM CuZn Au PA 6.6
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material  Material for screw connection	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au  PA 6.6  Zinc die-cast, nickel-plated
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material  Material for screw connection  Outer sheath, material	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au  PA 6.6  Zinc die-cast, nickel-plated
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material  Material for screw connection  Outer sheath, material	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au  PA 6.6  Zinc die-cast, nickel-plated  PUR
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material  Material for screw connection  Outer sheath, material  ectrical properties  Rated surge voltage	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au  PA 6.6  Zinc die-cast, nickel-plated  PUR
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material  Material for screw connection  Outer sheath, material  ectrical properties  Rated surge voltage  Contact resistance	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au  PA 6.6  Zinc die-cast, nickel-plated  PUR  2.5 kV  ≤ 3 mΩ
nsulation characteristics  Overvoltage category  Degree of pollution  Aterial specifications  Material  Flammability rating according to UL 94  Seal material  Contact material  Contact surface material  Contact carrier material  Material for screw connection  Outer sheath, material  ectrical properties  Rated surge voltage  Contact resistance  Insulation resistance	II 3  Brass, nickel-plated  V0  FKM  CuZn  Au  PA 6.6  Zinc die-cast, nickel-plated  PUR  2.5 kV  ≤ 3 mΩ  ≥ 100 MΩ



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#### Connection data

#### Conductor connection

Connection method	Cable connection
Contact connection type	Socket
Tightening torque	3 Nm 4 Nm (Installation-side)

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100
Max. bending cycles	2000000

#### 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
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#### Cable/line

Cable length 2 m	1
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#### 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



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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
Thickness, outer sheath	approx. 0.50 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
Smallest bending radius, fixed installation	25 mm
Smallest bending radius, movable installation	50 mm
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)

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)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)

### Standards and regulations

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



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### Classifications

### **ECLASS**

	ECLASS-11.0	27440103	
	ECLASS-12.0	27440103	
	ECLASS-13.0	27440103	
ETIM			
	ETIM 9.0	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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