

1419331

https://www.phoenixcontact.com/us/products/1419331

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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: 2 m, 0.34 mm<sup>2</sup>, PUR halogen-free black, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239248

### 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	1419331
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGG
Catalog page	Page 51 (C-2-2019)
GTIN	4046356533317
Weight per piece (including packing)	123.8 g
Weight per piece (excluding packing)	106 g
Customs tariff number	85444290
Country of origin	DE



1419331

https://www.phoenixcontact.com/us/products/1419331

### Technical data

### Notes

lotes	
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:     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



1419331

https://www.phoenixcontact.com/us/products/1419331

	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>
Mounting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly instructions	With flat nut
·	
Product properties	
Product type	Circular connectors (device side)
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12
Insulation characteristics	
Overvoltage category	II
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 <sub>N</sub>	60 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)
Max. conductor resistance	57 Ω/km



1419331

https://www.phoenixcontact.com/us/products/1419331

#### Connection data

### Conductor connection

Connection method	Cable connection
Contact connection type	Socket
Conductor cross section	5x 0.34 mm² (Signal line)
Tightening torque	3 Nm 4 Nm (Installation-side)

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100
Max. bending cycles	10000000

### Connector

#### Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	A

### Connection 2

### Cable/line

Cable length	2 m
--------------	-----

### 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



1419331

https://www.phoenixcontact.com/us/products/1419331

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)
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

### Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)



1419331

https://www.phoenixcontact.com/us/products/1419331

	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
Standards and regulations	
Standards and regulations Standard designation	M12 connector



1419331

https://www.phoenixcontact.com/us/products/1419331

## Classifications

### **ECLASS**

	ECLASS-11.0	27440103	
	ECLASS-12.0	27440103	
	ECLASS-13.0	27440103	
ETIM			
	ETIM 9.0	EC003570	
UNSPSC			
	UNSPSC 21.0	39121400	



1419331

https://www.phoenixcontact.com/us/products/1419331

# 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"

Phoenix Contact 2024 © - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com