

1222105

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Device connector rear mounting, 4-position, PUR, black-gray RAL 7021, Socket, straight, M12-Push-Pull, coding: A, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 2 m, PUR halogen-free black

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
- · Established M12 standard for secure transmission of signals, data, and power
- · Manufacturer-independent M12 push-pull locking system for maximum availability
- · Reliable shield connection even under extreme mechanical strain
- · Compatible with connectors with screw or push-in connection

Commercial data

Item number	1222105
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDCG
GTIN	4063151310981
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	DE



1222105

https://www.phoenixcontact.com/us/products/1222105

Technical data

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.
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 an 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



1222105

https://www.phoenixcontact.com/us/products/1222105

• 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 instructions	With flat nut

Product properties

Product type	Circular connectors (device side)
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Material	Brass, nickel-plated
Flammability rating according to UL 94	VO
Seal material	FKM
Material of grip body	Brass, nickel-plated
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material for screw connection	Brass, nickel-plated
Outer sheath, material	PUR

Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	250 V
Nominal current I _N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper



1222105

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Connection data

Connection method	Individual wires
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	Push-Pull
Coding	A
Connection 2	
Head design	free cable end
Cable/line	
Cable length	2 m

С

Cable length	2 m

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



1222105

https://www.phoenixcontact.com/us/products/1222105

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	1000000
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



1222105

https://www.phoenixcontact.com/us/products/1222105

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

M12		
Standard designation	M12 connector	
Standards/specifications	IEC 61076-2-010	
Note	Push-pull (type 2)	



1222105

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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	



1222105

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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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