

1419409

https://www.phoenixcontact.com/ie/products/1419409

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Device connector rear mounting, Universal, 5-position, PUR halogen-free, black-gray RAL 7021, shielded, Pin, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1. 5, Cable connection, cable length: 1 m, PUR halogen-free black, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239254

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	1419409
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB
Product key	ABQDGA
Catalog page	Page 51 (C-2-2019)
GTIN	4046356533287
Weight per piece (including packing)	76.5 g
Weight per piece (excluding packing)	64.3 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

otes	
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 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: 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
	 Ensure that the protective or functional ground has been properly connected.
	 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).
ounting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly note	With flat nut
roduct 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
Data management status	
Article revision	10
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3
aterial specifications	
Flammability rating according to UL 94	V0
Seal material	NBR
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
ectrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Contact resistance Insulation resistance	≤ 3 mΩ ≥ 100 MΩ



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Cable type

AWG signal line

Conductor structure signal line

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Nominal current I _N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Connection data	
Conductor connection	
Connection method	Cable connection
Contact connection type	Pin
Tightening torque	3 Nm 4 Nm (Installation-side)
Mechanical properties	
Mechanical data	
Insertion/withdrawal cycles	> 100
Connector	
Connection 1	
Head design	Pin
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
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

PUR halogen-free black [PUR]

42x 0.10 mm

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Conductor cross section	5x 0.34 mm² (Signal line)	
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line) 5.25 mm ±0.2 mm PUR	
External cable diameter		
Outer sheath, material		
External sheath, color	black-gray RAL 7021	
Conductor material	Bare Cu litz wires PP brown, white, blue, black, gray	
Material wire insulation		
Single wire, color		
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	
Bending radius	52 mm 10 m 3 m/s 10 m/s²	
Traversing path		
Traversing rate		
Acceleration		
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

M12

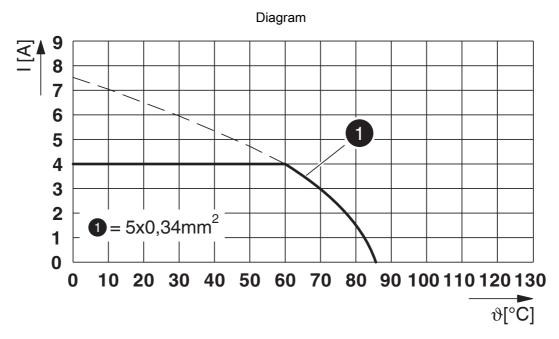
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101



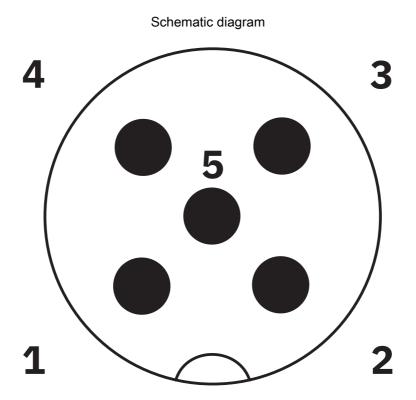
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Drawings



I = current strength, T = ambient temperature



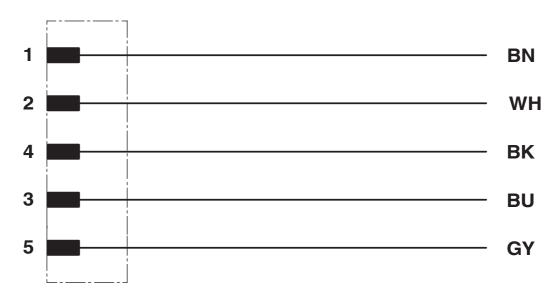
Pin assignment M12 connector, 5-pos., A-coded, socket side view



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Circuit diagram





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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/ie/products/1419409

1 R:	cUL Recognized Approval ID: E221474-2	IL Recognized proval 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	-	-	

cULus Recognized



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Classifications

ECLASS

	ECLASS-11.0	27440103		
	ECLASS-12.0	27440103		
	ECLASS-13.0	27440103		
ΕI	TIM			
	ETIM 9.0	EC002635		
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 "Manufacturer 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	0ce52b82-9fc0-41f1-a175-0df71003a757



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Accessories

SACC-M16-SEALING PLUG SET - Screw plug

1453368

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Screw plug, Rear mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239800

PROT-M12 FS - Sealing cap

1560251

https://www.phoenixcontact.com/ie/products/1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field



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PROT-M12 FS-M - Sealing cap

1430488

https://www.phoenixcontact.com/ie/products/1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

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