

1411652

https://www.phoenixcontact.com/us/products/1411652

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Device connector rear mounting, Power, 3-position, Socket, straight, M12-Standard, coding: S, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 1.31 mm^2 , UL/cUL stranded hook-up wire, potted, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238906

Your advantages

- · For compact devices: transmit high power in a confined space
- · For industrial infrastructure applications
- · Protection against mismatching thanks to S-coding
- · Preassembled with litz wires for immediate use
- · Customer-specific assemblies and litz wire lengths available
- · Sealed on the litz wire side for optimum leak-tightness
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1411652	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Sales key	AB24	
Product key	ABQCHG	
Catalog page	Page 281 (C-2-2019)	
GTIN	4046356937412	
Weight per piece (including packing)	50.8 g	
Weight per piece (excluding packing)	39.406 g	
Customs tariff number	85444290	
Country of origin	DE	



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Technical data

Notes

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	
General	Contact connection method: Crimp connection	

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.



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	The suitable accessories are available online in the accessory 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).
Mounting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly note	With flat nut
Product properties	
Product type	Circular connectors (device side)
Application	Power
Sensor type	Power
Number of positions	3
Connection profile	2+PE
No. of cable outlets	1
No. of power contacts	2
Shielded	no
Coding	S
Thread type	M12
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3
Material specifications	
Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Bare Cu litz wires
Electrical properties	
Rated voltage in acc. with IEC 61076-2-101	630 V
Rated surge voltage	6 kV
	6 kV AC



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Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	630 V
Nominal current I _N	16 A
Test voltage	6 kV

Connection data

Conductor connection

Connection method	Individual wires	
Contact connection type	Socket	
Conductor cross section	1.31 mm²	
Tightening torque	3 Nm 4 Nm (M12 connector)	

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	S

Connection 2

Head design	free cable end

Cable/line

Cable length	0.5 m	
Cable type	UL/cUL stranded hook-up wire	
Signal type/category	Power	
Wire diameter incl. insulation	2.2 mm	
Single wire, color	black 1, black 2, green/yellow	
Cable cross section	1.31 mm²	
Conductor material	Bare Cu litz wires	
AWG signal line	16	
Material wire insulation mPPE		
Halogen-free	yes	
Flame resistance	in acc. to UL 1581 VW1	
Ambient temperature (operation)	-40 °C 85 °C (without mechanical actuation)	
	-40 °C 85 °C (without mechanical actuation)	



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	-25 °C 105 °C (Cable, flexible installation)
vironmental and real-life conditions	
Ambient conditions	
Degree of protection	IP65
	IP67
	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
	-25 °C 105 °C (Cable, flexible installation)
	-40 °C 105 °C (cable, fixed installation)
UL Type Rating	Type 4 (indoor use only)
andards and regulations	
Flame resistance	in acc. to UL 1581 VW1
Standards/specifications	according to IEC 61076-2-111

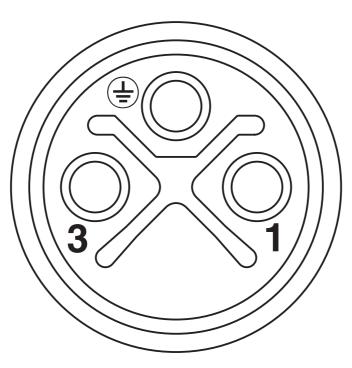


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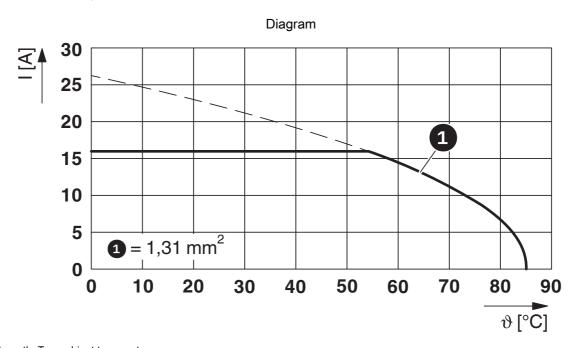
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Drawings





Pin assignment: M12 socket, 3-pos., S-coded, view of socket side



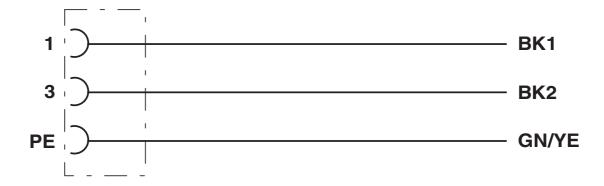
I = current strength, T = ambient temperature



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Circuit diagram



Contact assignment of the M12 socket



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411652

cUL Recognized Approval ID: E468743-20190917					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		600 V	12 A	16	-

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cULus Recognized



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Classifications

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	ECLASS-13.0	27440103
ETIM		
	ETIM 9.0	EC003570
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	e83e834c-407a-474c-9314-c2b9c819d936

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