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Flush-type connector, Power, 5-position, Socket, M12, K - Power, Rear mounting, M16 x 1.5, Individual wires, cable length: 1 m,  $1.31 \text{ mm}^2$ , UL/cUL stranded hook-up wire

### Your advantages

- For compact devices: transmit high power in a confined space

- Pre-assembled 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



## **Key Commercial Data**

Packing unit	1 pc
Minimum order quantity	25 pc
GTIN	4 063151 212629
GTIN	4063151212629

### Technical data

#### Dimensions

Length of cable	1 m
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## Ambient conditions

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-25 °C 85 °C (Plug / socket)
Degree of protection	IP67

#### General

Note	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if



## Technical data

## General

	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.	
Rated current at 40°C	12 A	
Rated voltage	630 V	
Rated surge voltage	6 kV	
Number of positions	5	
Coding	K - Power	
Standards/regulations	M12 connector IEC 61076-2-111 In line with	
Signal type/category	Power	
Status display	No	
Overvoltage category	III	
Degree of pollution	3	
Test voltage	6 kV	
Connection method	Individual wires	
Insertion/withdrawal cycles	> 100	
Torque	0.8 Nm 1.3 Nm (Installation-side)	
Mounting type	Rear mounting M16 x 1.5 With flat nut	
Assembly instructions	Tightening limitation	
Thread type	M16 x 1.5	
Halogen-free	yes	
Flame resistance	in acc. to UL 1581 VW1	

### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	FKM
Additional material specifications	PU 2K (Grout material)

## Cable

Cable type	UL/cUL stranded hook-up wire	
Conductor cross section	1.31 mm²	
AWG signal line	16	
Core diameter including insulation	2.2 mm	
Wire colors	Black 1, black 2, black 3, black 4, green/yellow	
Material conductor insulation	mPPE	
Conductor material	Bare Cu litz wires	
Standards/specifications	M12 connector IEC 61076-2-111 In line with	
Ambient temperature (operation)	-40 °C 105 °C (cable, fixed installation)	
	-20 °C 105 °C (cable, flexible installation)	

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## Technical data

## Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-111 In line with
Flame resistance	in acc. to UL 1581 VW1
Halogen-free	yes
Flammability rating according to UL 94	V0
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 mus 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
	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).

## **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1



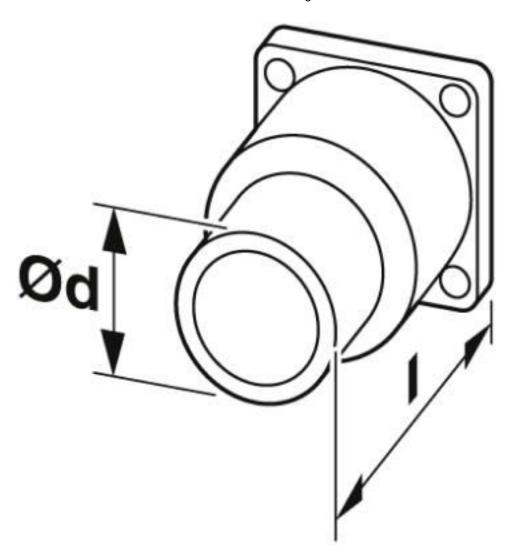
## Technical data

## **Environmental Product Compliance**

China RoHS	Environmentally Friendly Use Period = 50 years	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

## Drawings

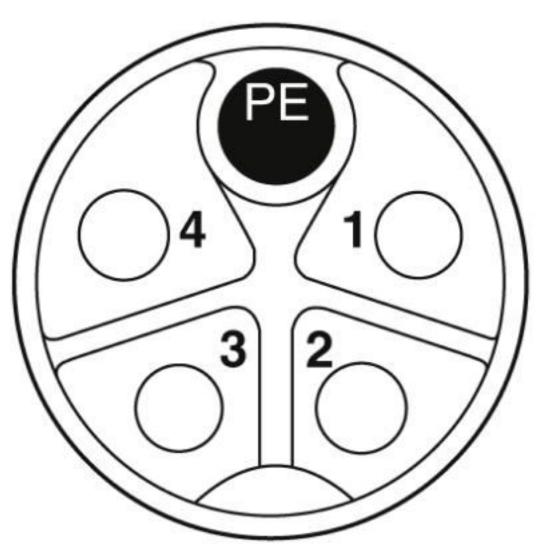
### Dimensional drawing



Technical drawings can be found under Downloads



Schematic diagram



Pin assignment of M12 socket, 5-pos., K-coded, socket side view

## Classifications

## eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 11.0	27440102
eCl@ss 8.0	27440102
eCl@ss 9.0	27440102

## Approvals

## Approvals



Approvals		
Approvals		
EAC		
Ex Approvals		
Approval details		
EAC	FAL	B.01687

#### Accessories

Accessories

Screw plug - PROT M12 MS PWR - 1092802



An M12 screw plug for the unoccupied M12 females of the M12 POWER connectors, boxes, and flush-type connectors

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PHOENIX CONTACT GmbH & Co. KG Flachsmarktstr. 8 32825 Blomberg Germany Tel. +49 5235 300

Fax +49 5235 3 41200

http://www.phoenixcontact.com

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