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Flush-type connector, Power, 5-position, Socket, M12, K - Power, Front mounting, M16 x 1.5, Individual wires, cable length: 0.2 m, 1.31 mm², UL/cUL stranded hook-up wire

#### Your advantages

- For compact devices: transmit high power in a confined space
- ☑ Easy-to-install, optimized XL housing contour with wrench size 19
- Mechanical tightening limitation for long-term-stable gasket
- 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
GTIN	4 055626 425870
GTIN	4055626425870
Weight per Piece (excluding packing)	35.000 g
Custom tariff number	85444290
Country of origin	Germany

#### Technical data

#### **Dimensions**

Length of cable	0.2 m

Ambient conditions



## Technical data

#### 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 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
Insulation resistance	$\geq 100 \text{ M}\Omega$
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	Front mounting M16 x 1.5 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



## Technical data

### 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)

## 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 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



### Technical data

### Standards and Regulations

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

## **Drawings**

#### Dimensional drawing



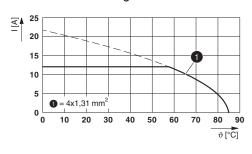
### Schematic diagram



Technical drawings can be found under Downloads

Connector pin assignment of M12 plug, 5-pos., K-coded, pin side view

#### Diagram



I = current strength, T = ambient temperature



## Classifications

eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 11.0	27440102
eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCl@ss 8.0	27440102
eCl@ss 9.0	27440102

## Approvals

Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

### Approval details

EAC B.01687

cULus Recognized	c <b>91</b> us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		E468743-20180113
Nominal voltage UN			600 V	
Nominal current IN			12 A	
mm²/AWG/kcmil			16	

## Accessories

Accessories

Flat nut



### Accessories

Flat nut - SACC-E-MU-M16 - 1504097



Flat nut with M16 thread

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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