

# Flush-type connector - SACC-E-M12MSK-4PE-M16XL/0,2



1415291

<https://www.phoenixcontact.com/pc/products/1415291>

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Flush-type connector, Power, 5-position, Plug, M12, K - Power, Front mounting, Square flange, Individual wires, cable length: 0.2 m, 2.50 mm<sup>2</sup>, PEX litz 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

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## Commercial Data

Item number	1415291
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	ABQEAA
Catalog Page	Page 284 (C-2-2019)
GTIN	4055626056203
Weight per Piece (including packing)	57.2 g
Weight per Piece (excluding packing)	45.6 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.
Safety note	<p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> <ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li><li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li><li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li><li>• Assembled products may not be manipulated or improperly opened.</li><li>• 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 <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li><li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li><li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li><li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li><li>• Observe the corresponding technical data. You will find information:<ul style="list-style-type: none"><li>o On the product</li><li>o On the packing label</li><li>o In the supplied documentation</li><li>o Online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li></ul></li><li>• Only use tools recommended by Phoenix Contact</li><li>• 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 <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a></li><li>• Ensure that the protective or functional ground has been properly connected.</li></ul>

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	<ul style="list-style-type: none"> <li>• 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</li> <li>• 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).</li> </ul>
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## Product properties

Product type	Circular connectors (device side)
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	K - Power

## Insulation characteristics

Overvoltage category	III
Degree of pollution	3

## Ambient conditions

Degree of protection	IP67
Degree of protection	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)

## Connector

Insertion/withdrawal cycles	> 100
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## Header 1

Head design	Plug
Head thread type	M12
Coding	K - Power

## Electrical properties

Rated voltage in acc. with IEC 61076-2-101	630 V
Rated surge voltage	6 kV
Rated surge voltage	6 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage $U_N$	630 V
Nominal current $I_N$	16 A
Test voltage	6 kV

## Material specifications

Material	PU 2K (Grout material)
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Flammability rating according to UL 94	V0
Sealing material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Cable gland material	CuZn alloy, nickel-plated

## Connection data

### Conductor connection

Connection method	Individual wires
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## Mounting

Mounting type	Front mounting
Assembly instructions	Tightening limitation

## Standards and regulations

Flame resistance	in acc. with UL FT-2
Other resistance	Hydrolysis-resistant

### M12

Standards/specifications	IEC 61076-2-111
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## Cable / line

Cable length	0.2 m
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### Cable structure

Cable type	PEX litz wire
Signal type/category	Power
Conductor material	Tin-plated Cu litz wires
AWG signal line	14
Material wire insulation	PE-X
Single wire, color	Black 1, black 2, black 3, black 4, green/yellow

### Electrical properties

Test voltage Core/Core	6 kV
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### Ambient conditions

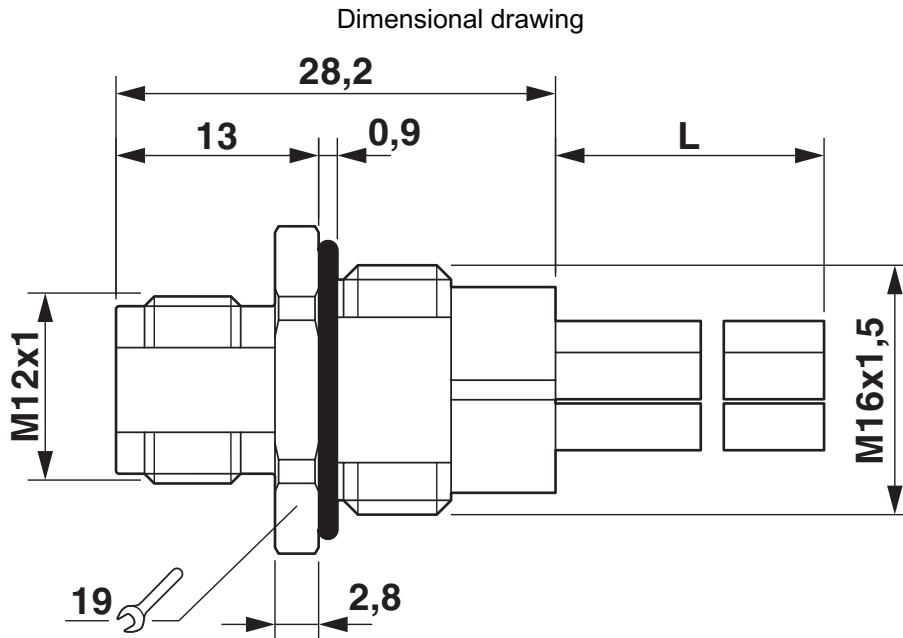
Halogen-free	according to IEC 60754-1
Flame resistance	in acc. with UL FT-2
Other resistance	Hydrolysis-resistant
Ambient temperature (operation)	-25 °C ... 105 °C (Cable, flexible installation) -40 °C ... 105 °C (cable, fixed installation)

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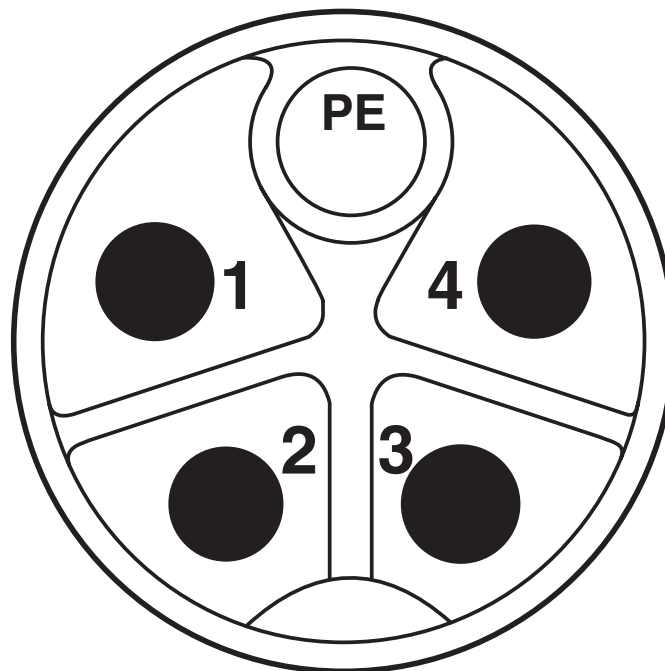
<https://www.phoenixcontact.com/pc/products/1415291>

## Drawings



M12 flush-type plug

Schematic diagram



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

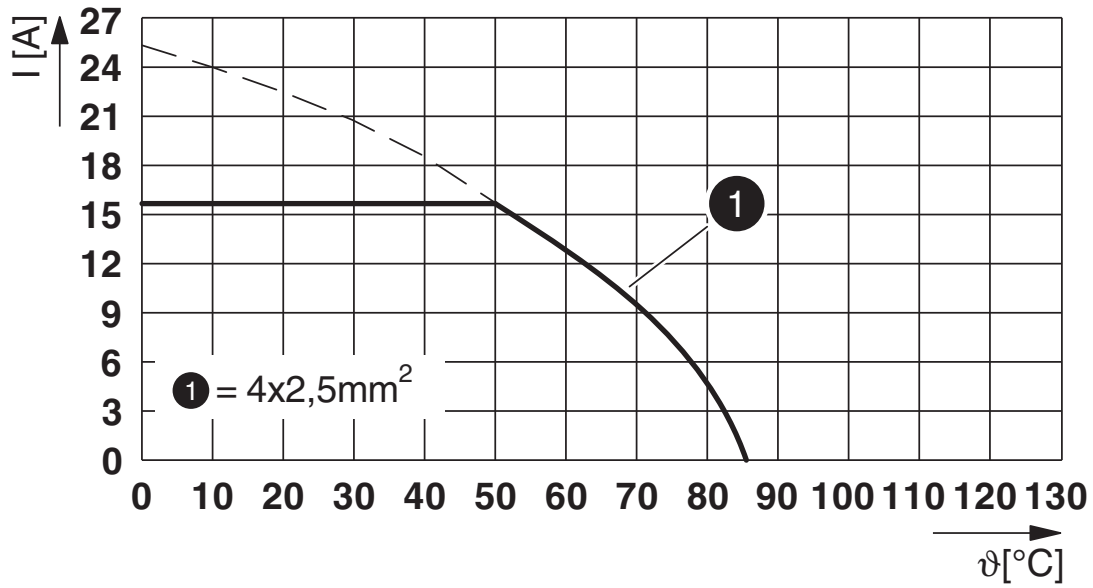
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Diagram



$I$  = current strength,  $T$  = ambient temperature

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## Approvals



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E468743-20180113

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
		16 A	- 14	-

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## Classifications

### ECLASS

ECLASS-9.0	27440102
ECLASS-10.0.1	27440102
ECLASS-11.0	27440102

### ETIM

ETIM 8.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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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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## Accessories

### Flat nut

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

<https://www.phoenixcontact.com/pc/products/1504097>

Flat nut with M16 thread



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### Sealing cap

Sealing cap - PROT-M12 FS - 1560251

<https://www.phoenixcontact.com/pc/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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## Sealing cap

Sealing cap - PROT-M12 FS-M - 1430488

<https://www.phoenixcontact.com/pc/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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