SACC-E-M12MSK-4PE-M16XL/2,0-US - Device connector front mounting

1329943

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Device connector front mounting, Power, 5-position, Flush-type male connector, straight, M12-Standard, K-coding, on free cable end, Individual wires, cable length: 2 m, 2.50 mm^2, 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
- 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	1329943
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCEF
GTIN	4063151626709
Weight per piece (including packing)	316 g
Weight per piece (excluding packing)	299.216 g
Customs tariff number	85444290
Country of origin	US

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

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. 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	Front mounting (M16 x 1.5, XL variant, tightening limitation)

Product properties

Product type	Circular connectors (device side)
Application	Power
Number of positions	5
Connection profile	4+PE
No. of cable outlets	1
No. of power contacts	4
Shielded	no
Coding	K
Thread type	M12

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Seal material	FKM
Material wire insulation	PE-X
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Conductor material	Bare Cu litz wires

Electrical properties

Rated voltage in acc. with IEC 61076-2-101	630 V
Rated surge voltage	6 kV
Rated surge voltage	6 kV AC
Insulation resistance	≥ 100 MΩ
Test voltage	6 kV
Test voltage Core/Core	6 kV

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Pin
Conductor cross-section	2.5 mm²

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Interfaces

Signal type/category	Power

Connector

Connection 1

Head design	Flush-type male connector
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	K

Connection 2

Head design	free cable end

Cable/line

Cable length	2 m
Cable type	PEX litz wire
Wire diameter incl. insulation	3 mm
Single wire, color	black 1, white 2, red 3, blue 4, green/yellow
Cable cross section	2.5 mm²
Conductor material	Bare Cu litz wires
AWG signal line	14
Material wire insulation	PE-X
Test voltage Core/Core	6 kV
Halogen-free	according to IEC 60754-1
Flame resistance	in acc. with UL FT-2
Other resistance	Hydrolysis-resistant
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-25 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

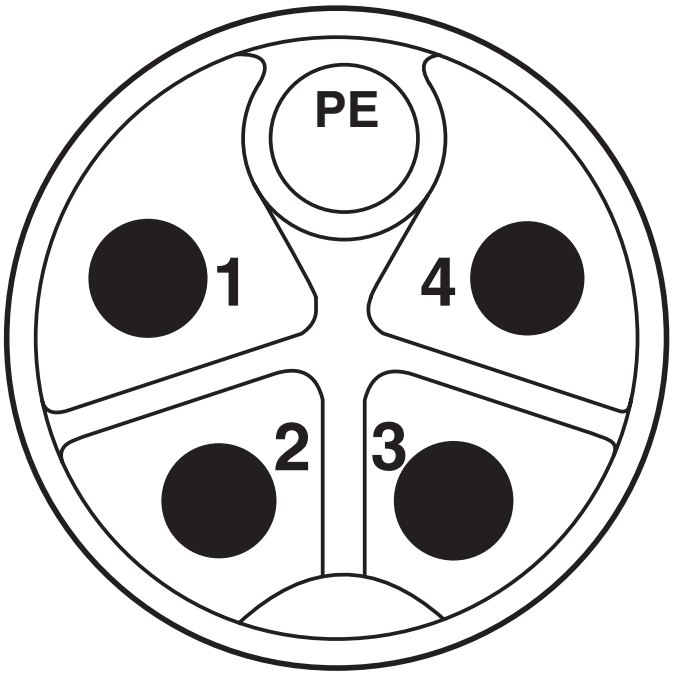
Degree of protection	IP65/IP67 (when mated)
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C ... 105 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 105 °C (cable, fixed installation)
UL Type Rating	Type 4 (indoor use only)
	Type 12

Standards and regulations

Flame resistance	in acc. with UL FT-2
Other resistance	Hydrolysis-resistant
Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-111

Drawings

Schematic diagram



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

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1329943

UL Recognized
Approval ID: E468743-20230808

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
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Pollution degree 2	600 V	16 A	- 14	-
In accordance with UL 2237	250 V	16 A	- 14	-

Classifications

ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27440103

ETIM

ETIM 10.0	EC003570

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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