# SACC-E-M12MSS-3PE-M16XL/2,0-US - Device connector front mounting

1329920

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Device connector front mounting, Power, 4-position, Pin, straight, M12-Standard, S-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 | 1329920 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB24 |
| Product key | ABQCEF |
| GTIN | 4063151626310 |
| Weight per piece (including packing) | 259.4 g |
| Weight per piece (excluding packing) | 259.4 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:<br>o On the product<br>o On the packing label<br>o In the supplied documentation<br>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 | 4 |
| No. of cable outlets | 1 |
| No. of power contacts | 3 |
| Shielded | no |
| Coding | S |
| 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 |
| Material for screw connection | Zinc die-cast, nickel-plated |
| Conductor material | Bare Cu litz wires |

## Electrical properties

| | |
|---|---|
| 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 | Pin |
| 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 | 2 m |
| Cable type | PEX litz wire |
| Wire diameter incl. insulation | 3 mm |
| Single wire, color | black 1, white 2, red 3, green/yellow |
| Cable cross section | 2.5 mm² |
| Conductor material | Bare Cu litz wires |
| AWG signal line | 14 |
| 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 ... 85 °C (without mechanical actuation) |
| | -40 °C ... 85 °C (without mechanical actuation) |
| | -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 | -25 °C ... 85 °C (Plug / socket) |

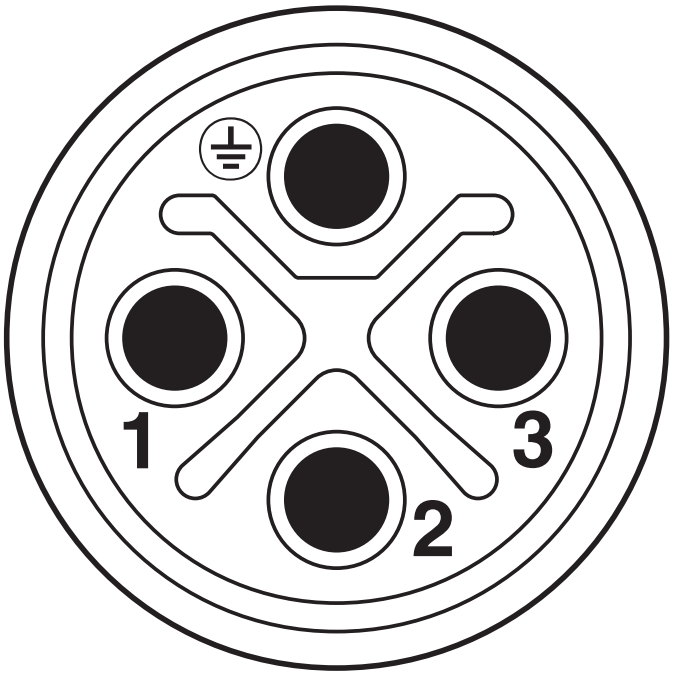
| | |
|---|---|
| connector) | |
| Ambient temperature (operation) (Cable, fixed installation) | -40 °C ... 85 °C (without mechanical actuation) |
| Ambient temperature (operation) (Cable, flexible installation) | -25 °C ... 105 °C (Cable, flexible installation) |
| Ambient temperature (operation) (Cable, 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, 4-pos., S-coded, view of pin side

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1329920

**UL Recognized**
Approval ID: E468743-20230808

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| 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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