# SACC-E-M12MSS-4CON-M16/0,5 PE - Device connector front mounting

1424139

https://www.phoenixcontact.com/us/products/1424139

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Device connector front mounting, Power, 4-position, Pin, straight, M12-Standard, S-coding, on free cable end, Individual wires, cable length: 0.5 m, 1.31 $mm^2$, UL/cUL stranded hook-up wire, potted, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

## Your advantages

- For compact devices: transmit high power in a confined space
- Protection against mismatching thanks to S-coding
- 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 | 1424139 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB24 |
| Product key | ABQCEG |
| GTIN | 4046356693417 |
| Weight per piece (including packing) | 59.2 g |
| Weight per piece (excluding packing) | 47.027 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

## 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. |
| General | Contact connection method: Crimp connection |

Safety note

| | |
|---|---|
| Safety note | • 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. |

### Mounting

| | |
|---|---|
| Mounting type | Front mounting (M16 x 1,5) |
| Tightening torque | 3 Nm ... 4 Nm (Installation-side) |

### Product properties

| | |
|---|---|
| Product type | Circular connectors (device side) |
| Application | Power |
| Number of positions | 4 |
| Connection profile | 3+PE |
| 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

| | |
|---|---|
| Material Molding compound | PUR (potted) |
| Flammability rating according to UL 94 | V0 |
| Material grommet GRP | FKM |
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA |
| Material for screw connection | CuZn alloy, nickel-plated |
| 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 |
| Contact resistance | ≤ 3 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 630 V |
| Nominal current $I_N$ | 12 A |
| Test voltage | 6 kV |

## Connection data

### Conductor connection

| | |
|---|---|
| Connection method | Individual wires |
| Contact connection type | Pin |
| Conductor cross-section | 1.31 mm² |
| Tightening torque | 3 Nm ... 4 Nm (Installation-side) |

## 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 | 0.5 m |
| Cable type | UL/cUL stranded hook-up wire |
| Wire diameter incl. insulation | 2.2 mm |
| Single wire, color | black 1, black 2, black 3, green/yellow |
| Cable cross section | 1.31 mm² |

| | |
|---|---|
| Conductor material | Bare Cu litz wires |
| AWG signal line | 16 |
| Material wire insulation | mPPE |
| Halogen-free | yes |
| Flame resistance | in acc. to UL 1581 VW1 |
| Ambient temperature (operation) | -40 °C ... 85 °C (without mechanical actuation) |
| | -40 °C ... 105 °C (cable, fixed installation) |
| | -25 °C ... 105 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

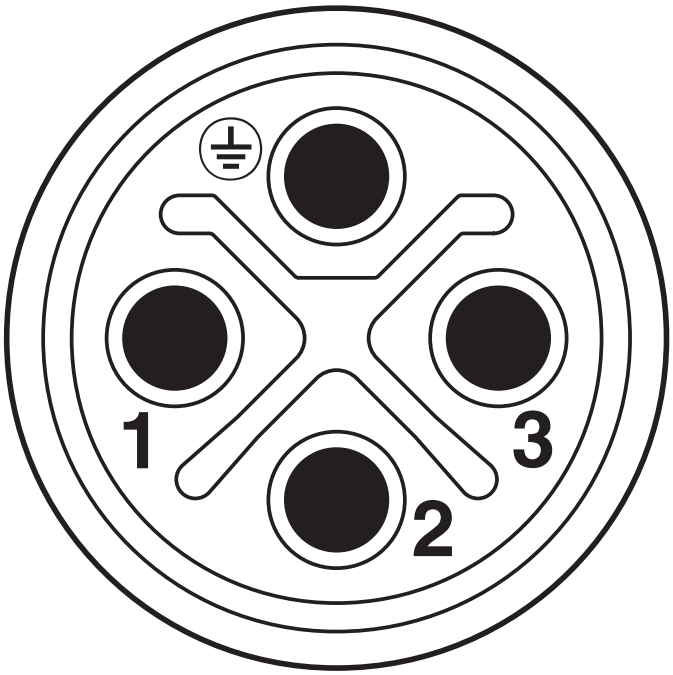
| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C (Plug / socket) |
| Ambient temperature (operation) (without mechanical actuation) | -40 °C ... 85 °C (without mechanical actuation) |
| Ambient temperature (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) |

## Standards and regulations

| | |
|---|---|
| Flame resistance | in acc. to UL 1581 VW1 |
| Standard designation | M12 circular connector |
| Standards/specifications | according to IEC 61076-2-111 |
| Standard designation | Shock, vibration |
| Standards/specifications | according to EN 50155 |
| Standard designation | Shock, vibration |
| Standards/specifications | according to EN 61373:2011 |

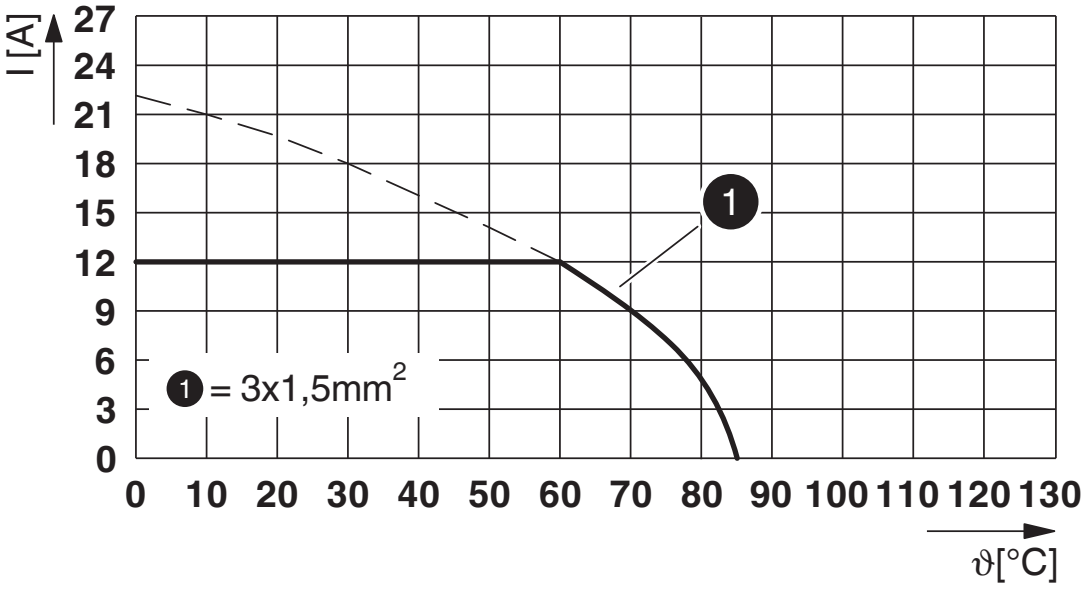
## Drawings

Schematic diagram



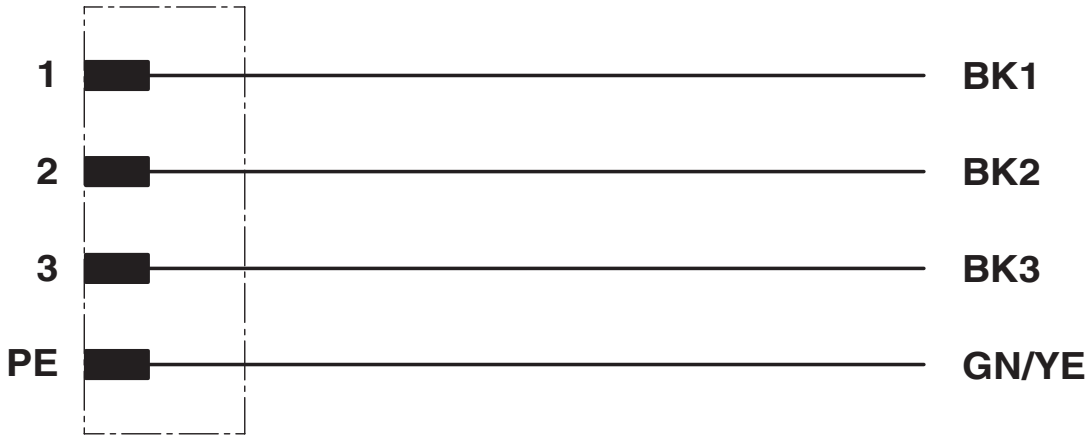

Connector pin assignment of M12 plug, 4-pos., S-coded, view of pin side

Diagram




I = current strength, T = ambient temperature

Circuit diagram




Contact assignment

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1424139

**cUL Recognized**
Approval ID: E468743-20190917

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 12 A | 16 | - |

**UL Recognized**
Approval ID: E468743-20190917

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 12 A | 16 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440103 |
| ECLASS-15.0 | 27440103 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC003570 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## 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% |


Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com



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