

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



1424139

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

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Device connector front mounting, Power, 4-position, Pin, straight, M12-Standard, coding: S, on free cable end, Front mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 1.31 mm<sup>2</sup>, UL/cUL stranded hook-up wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239445

## 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              |
| Catalog page                         | Page 282 (C-2-2019) |
| GTIN                                 | 4046356693417       |
| Weight per piece (including packing) | 59.9 g              |
| Weight per piece (excluding packing) | 48.4 g              |
| Customs tariff number                | 85444290            |
| Country of origin                    | DE                  |

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## connector front mounting



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## Technical data

### Notes

|         |                                                                                                                                                                                                                                                                                                                                                    |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | 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 | <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</li></ul> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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section of the product at [phoenixcontact.com/products](https://www.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

## Product properties

Product type

Circular connectors (device side)

Sensor type

Power

Number of positions

4

No. of cable outlets

1

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

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

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

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## 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 |
|-----------------------------|-------|

## 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                     |
| Signal type/category            | Power                                            |
| 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 | IP67 |
|----------------------|------|

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|                                 |                                                  |
|---------------------------------|--------------------------------------------------|
|                                 | 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)    |

## Standards and regulations

|                  |                        |
|------------------|------------------------|
| Flame resistance | in acc. to UL 1581 VW1 |
|------------------|------------------------|

### M12

|                          |                  |
|--------------------------|------------------|
| Standard designation     | M12 connector    |
| Standards/specifications | IEC 61076-2-111  |
| Note                     | In line with     |
| Standard designation     | Shock, vibration |
| Standards/specifications | EN 50155         |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440102 |
| ECLASS-12.0 | 27440116 |
| ECLASS-13.0 | 27440116 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002635 |
|----------|----------|

### 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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