

# SACC-E-M12FST-4P-M16XL/1,5 - Device connector front mounting



1231030

<https://www.phoenixcontact.com/us/products/1231030>

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Device connector front mounting, Power, 4-position, Socket, straight, M12-Standard, T-coding, on free cable end, Individual wires, cable length: 1.5 m, 1.31 mm<sup>2</sup>, UL/cUL stranded hook-up wire, potted, this item is expected to be lead-free from Q4 2025 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

## 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                          | 1231030       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB24          |
| Product key                          | ABQCFG        |
| GTIN                                 | 4063151331504 |
| Weight per piece (including packing) | 101 g         |
| Weight per piece (excluding packing) | 98.374 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. |
| General            | Contact connection method: Crimp connection                                                                                                                                                                                                                                                                                                        |

### Mounting

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Mounting type     | Front mounting (M16 x 1.5, XL variant, tightening limitation) |
| Tightening torque | 0.8 Nm ... 1.3 Nm (Installation-side)                         |

### Product properties

|                      |                                   |
|----------------------|-----------------------------------|
| Product type         | Circular connectors (device side) |
| Application          | Power                             |
| Sensor type          | Power                             |
| Number of positions  | 4                                 |
| No. of cable outlets | 1                                 |
| Shielded             | no                                |
| Coding               | T                                 |
| 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                           |
| Seal material                          | FKM                          |
| Contact material                       | CuZn                         |
| Contact surface material               | Ni/Au                        |
| Contact carrier material               | PA                           |
| Material for screw connection          | Zinc die-cast, nickel-plated |
| Conductor material                     | Bare Cu litz wires           |

### Electrical properties

|                       |              |
|-----------------------|--------------|
| Rated surge voltage   | 1.5 kV       |
| Rated surge voltage   | 1.5 kV AC/DC |
| Contact resistance    | ≤ 3 mΩ       |
| Insulation resistance | ≥ 100 MΩ     |

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|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 63 V DC |
| Nominal current $I_N$ | 12 A    |
| Test voltage          | 1.5 kV  |

## Connection data

### Conductor connection

|                         |                                       |
|-------------------------|---------------------------------------|
| Connection method       | Individual wires                      |
| Contact connection type | Socket                                |
| Conductor cross-section | 1.31 mm <sup>2</sup>                  |
| Tightening torque       | 0.8 Nm ... 1.3 Nm (Installation-side) |

## Mechanical properties

### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | > 100 |
|-----------------------------|-------|

## Connector

### Connection 1

|                   |          |
|-------------------|----------|
| Head design       | Socket   |
| Head cable outlet | straight |
| Head thread type  | M12      |
| Head locking type | Standard |
| Coding            | T        |

### Connection 2

|             |                |
|-------------|----------------|
| Head design | free cable end |
|-------------|----------------|

## Cable/line

|                                 |                                                  |
|---------------------------------|--------------------------------------------------|
| Cable length                    | 1.5 m                                            |
| Cable type                      | UL/cUL stranded hook-up wire                     |
| Signal type/category            | Power                                            |
| Wire diameter incl. insulation  | 2 mm                                             |
| Single wire, color              | black, brown, blue, white                        |
| Cable cross section             | 1.31 mm <sup>2</sup>                             |
| 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 ... 85 °C (without mechanical actuation)  |
|                                 | -25 °C ... 105 °C (Cable, flexible installation) |

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## 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) (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)                         |

## Standards and regulations

|                          |                              |
|--------------------------|------------------------------|
| Flame resistance         | in acc. to UL 1581 VW1       |
| Standard designation     | M12 circular connector       |
| Standards/specifications | according to IEC 61076-2-111 |

# SACC-E-M12FST-4P-M16XL/1,5 - Device connector front mounting

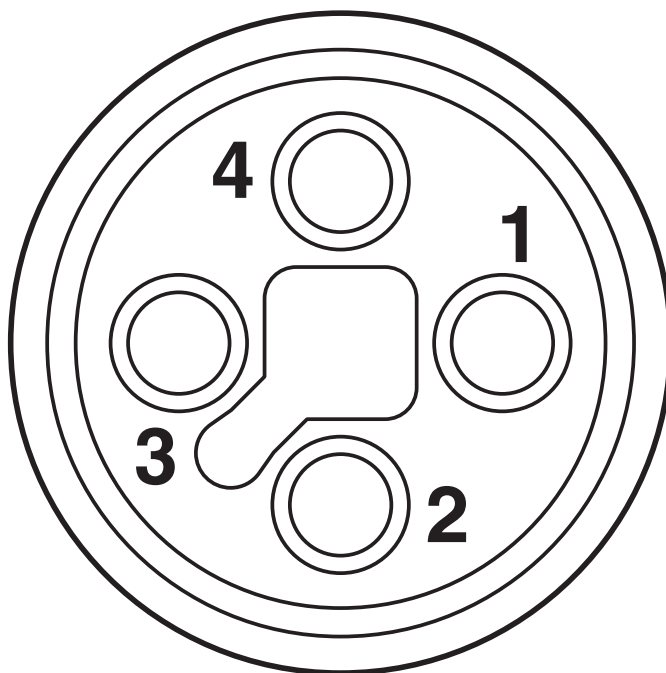


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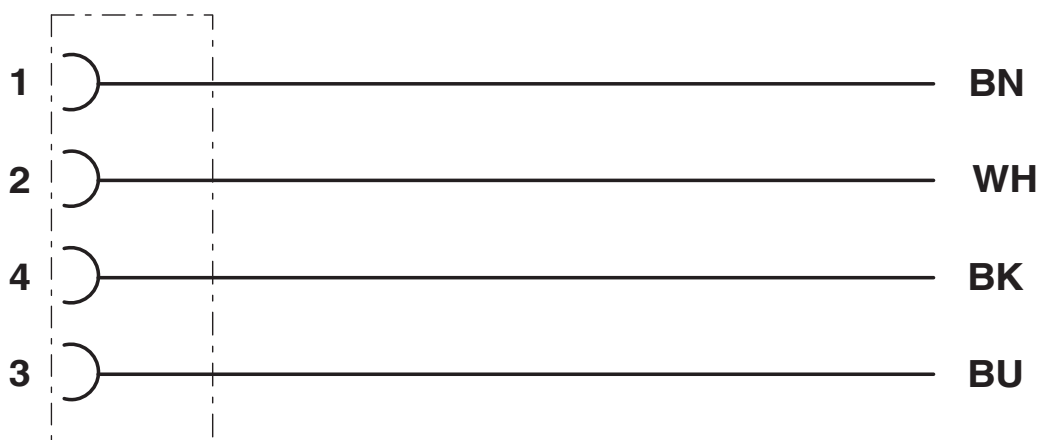
## Drawings

Schematic diagram



Pin assignment of M12 socket, 4-pos., T-coded, socket side view

Circuit diagram



Contact assignment of the M12 socket

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1231030>

|                                                                                                                                          |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Recognized</b><br>Approval ID: E468743-20190917 |                       |                       |                   |                             |
|                                                                                                                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                                    |                       |                       |                   |                             |
|                                                                                                                                          | 63 V                  | 12 A                  | 16                | -                           |

|                                                                                                                                         |                       |                       |                   |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
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| keine                                                                                                                                   |                       |                       |                   |                             |
|                                                                                                                                         | 63 V                  | 12 A                  | 16                | -                           |

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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC003570 |
|----------|----------|

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|                                         |      |
|-----------------------------------------|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

### China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | ea085e57-7ee4-41f7-9eb9-8127ed05e057 |

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