

# SACC-M12FST-3PECON-PG11-M - Power connector



1404644

<https://www.phoenixcontact.com/us/products/1404644>

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Power connector, Power, 4-position, unshielded, Socket straight M12, coding: T, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg11, external cable diameter 8 mm ... 10 mm, For direct current up to 12 A/63 V

## Your advantages

- Safe use in the field, thanks to a high degree of protection
- Screw connection: proven connection technology for a large selection of different conductors
- High-performance: DC connectors for up to 12 A and 63 V DC
- Protection against incorrect connection using special T-coding

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1404644       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF30          |
| Product key                          | AF2CAB        |
| GTIN                                 | 4046356707756 |
| Weight per piece (including packing) | 28.6 g        |
| Weight per piece (excluding packing) | 24.84 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | DE            |

## Technical data

### Notes

|               |                                                                                                                                                                                                                                             |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General       | Strip 22 mm off the cable sheath, strip 7 mm off the conductor insulation, crimp the ferrule, then shorten this to 5 mm. Length of conductor with shortened ferrule: 20 mm. Connect conductors and tighten the mounting screws with 0.2 Nm. |
| Assembly note | <b>NOTE:</b> Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.     |

### Mounting

|               |                                                                    |
|---------------|--------------------------------------------------------------------|
| Assembly note | The wires can be connected both with ferrules and without ferrules |
|---------------|--------------------------------------------------------------------|

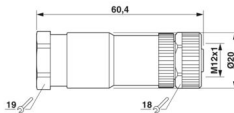
### Product properties

|                      |                                 |
|----------------------|---------------------------------|
| Product type         | Circular connector (cable-side) |
| Application          | Energy supply                   |
| Sensor type          | Power                           |
| Number of positions  | 4                               |
| No. of cable outlets | 1                               |
| Shielded             | no                              |
| Coding               | T                               |
| Cable outlet         | straight                        |
| Pg screw connection  | Pg11                            |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Dimensions

|                        |                                                                                      |
|------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing    |  |
| Width                  | 20 mm                                                                                |
| Height                 | 20 mm                                                                                |
| Length                 | 60.4 mm                                                                              |
| Wrench size, union nut | 19 mm                                                                                |

### External dimensions

|                  |                |
|------------------|----------------|
| Outside diameter | 8 mm ... 10 mm |
|------------------|----------------|

### Housing

|                  |       |
|------------------|-------|
| Diameter housing | 20 mm |
|------------------|-------|

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## Material specifications

|                                        |                              |
|----------------------------------------|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Seal material                          | Viton                        |
|                                        | NBR                          |
| Material of grip body                  | PA                           |
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA                           |
| Material for screw connection          | Zinc die-cast, nickel-plated |

## Connection data

### Conductor connection

|                                         |                                                                  |
|-----------------------------------------|------------------------------------------------------------------|
| Connection method                       | Screw connection                                                 |
| Connection cross section                | 0.75 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (without ferrule)   |
|                                         | 0.75 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (with ferrule)      |
|                                         | 0.75 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (solid)             |
| Connection cross section AWG            | 18 ... 14 (without ferrule)                                      |
|                                         | 18 ... 16 (with ferrule)                                         |
| Stripping length of the individual wire | 5 mm                                                             |
| Tightening torque                       | 0.4 Nm (M12 knurl)                                               |
|                                         | 1.5 Nm ... 2 Nm (Pressure screw with sleeve housing)             |
|                                         | 0.4 Nm (Screw plug insert with sleeve housing as far it will go) |
|                                         | 0.2 Nm (Screw terminal blocks)                                   |

## Electrical properties

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| Rated surge voltage            | 1.5 kV                                           |
| Contact resistance             | ≤ 3 mΩ                                           |
| Insulation resistance          | > 10 GΩ                                          |
| Nominal voltage U <sub>N</sub> | 63 V DC                                          |
| Nominal current I <sub>N</sub> | 12 A (when using 1.5 mm <sup>2</sup> conductors) |
|                                | 12 A (at 40 °C)                                  |

## Mechanical properties

### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|-------|

## Connector

### Connection 1

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

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## Cable/line

|                                         |       |
|-----------------------------------------|-------|
| Signal type/category                    | Power |
| Stripping length of the individual wire | 5 mm  |

## Environmental and real-life conditions

### Ambient conditions

|                                                                   |                                  |
|-------------------------------------------------------------------|----------------------------------|
| Degree of protection                                              | IP67                             |
| Ambient temperature (operation) (male connector/female connector) | -40 °C ... 85 °C (Plug / socket) |

## Standards and regulations

### M12

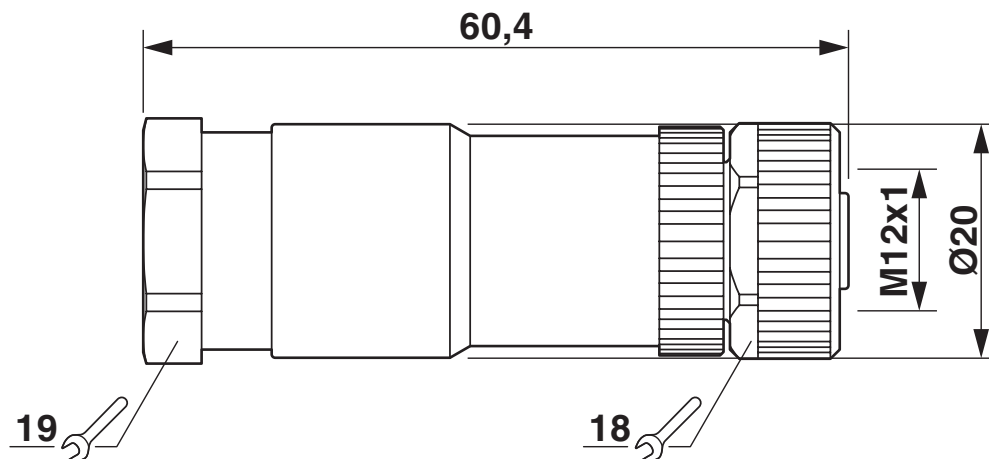
|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-111 |

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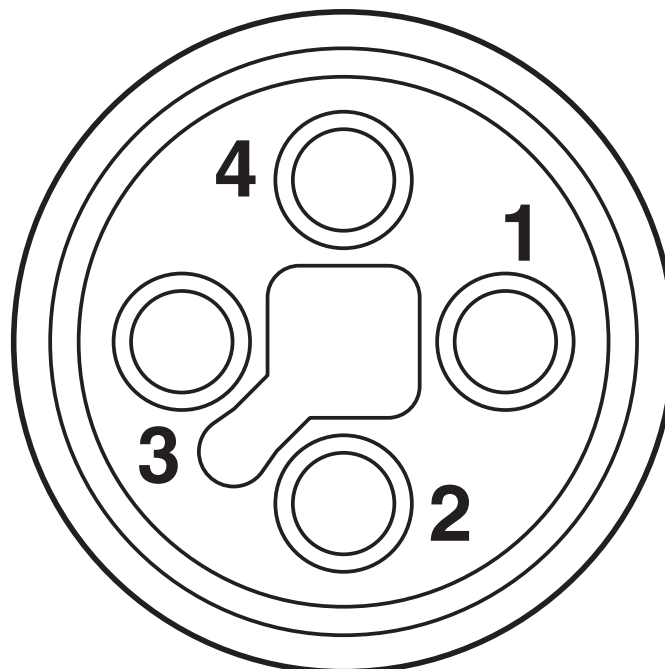
## Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



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

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1404644>

|                                                                                                                                       |                                |                                |                   |                               |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
|  <b>cUL Recognized</b><br>Approval ID: FILE E 221474 |                                |                                |                   |                               |
|                                                                                                                                       | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine                                                                                                                                 |                                |                                |                   |                               |
|                                                                                                                                       | 60 V                           | 12 A                           | - 16              | -                             |

|                                                                                                                                      |                                |                                |                   |                               |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
|  <b>UL Recognized</b><br>Approval ID: FILE E 221474 |                                |                                |                   |                               |
|                                                                                                                                      | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine                                                                                                                                |                                |                                |                   |                               |
|                                                                                                                                      | 60 V                           | 12 A                           | - 16              | -                             |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27440116 |
| ECLASS-15.0 | 27440116 |

### ETIM

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

### UNSPSC

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

## 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: n/a)                       |
| SCIP                                | 40d182d9-4760-4f0e-a616-fd6e7af3af6c |

## EF3.0 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 1.178 kg CO2e |
|---------|---------------|