# SACC-DSI-M12FSS-4P-M16XL/0,5PE - Device connector rear mounting

1411598

https://www.phoenixcontact.com/us/products/1411598

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Device connector rear mounting, Power, 4-position, Socket, 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, this item is expected to be lead-free from Q3 2026 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 | 1411598 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB24 |
| Product key | ABQCHG |
| GTIN | 4046356936057 |
| Weight per piece (including packing) | 59.8 g |
| Weight per piece (excluding packing) | 48.317 g |
| Customs tariff number | 85366990 |
| 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. |
| Order information: | Lock nut is included in the scope of delivery |
| 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 | Rear mounting (M16 x 1.5, XL version, with flat nut, tightening limitation) |
| Tightening torque | 1.5 Nm ... 2 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 Housing | GD-Zn |
| Material Housing surface | Ni |
| Material Molding compound | PUR (potted) |
| Flammability rating according to UL 94 | V0 |
| Material grommet GRP | FKM |
| Contact material | CuZn |
| Contact surface material | Au |

| | |
|---|---|
| Contact carrier material | PA |
| 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 | Socket |
| Conductor cross-section | 1.31 mm² |
| Tightening torque | 1.5 Nm ... 2 Nm (Installation-side) |

## Mechanical properties

### Mechanical data

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

## Interfaces

| | |
|---|---|
| Signal type/category | Power |

## Connector

### Connection 1

| | |
|---|---|
| Head design | Socket |
| 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 ... 85 °C (without mechanical actuation) |
| | -25 °C ... 105 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

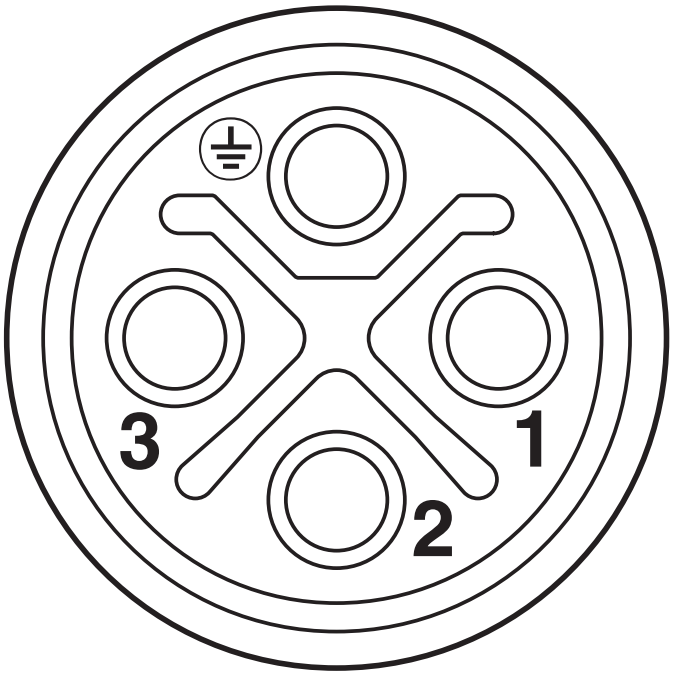
| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C (Plug / socket) |
| Ambient temperature (operation) (Cable, fixed installation) | -40 °C ... 85 °C (without mechanical actuation) |
| Ambient temperature (operation)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

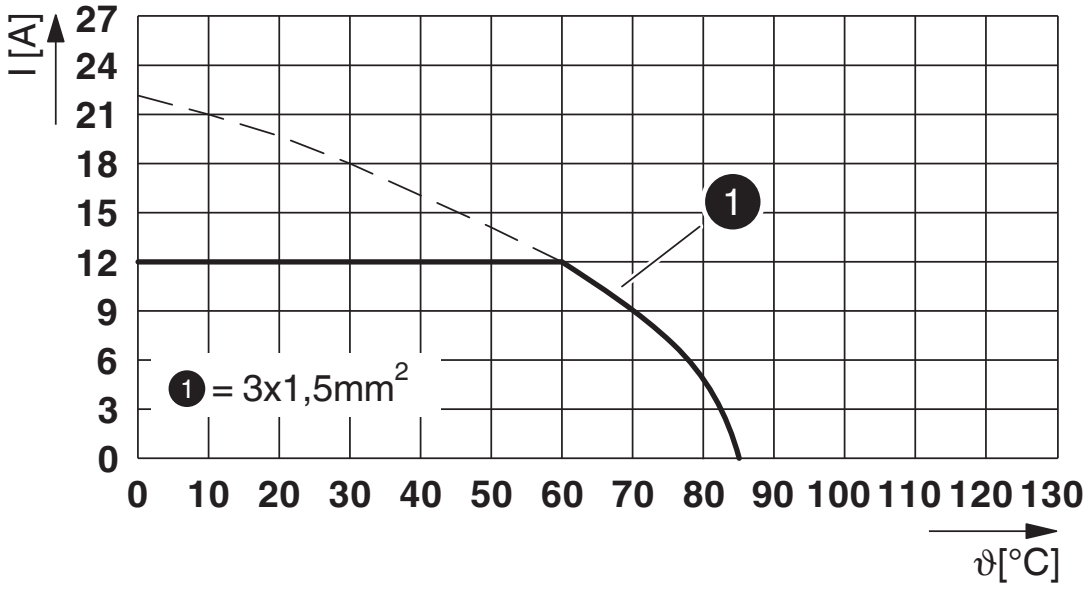
## Drawings

Schematic diagram



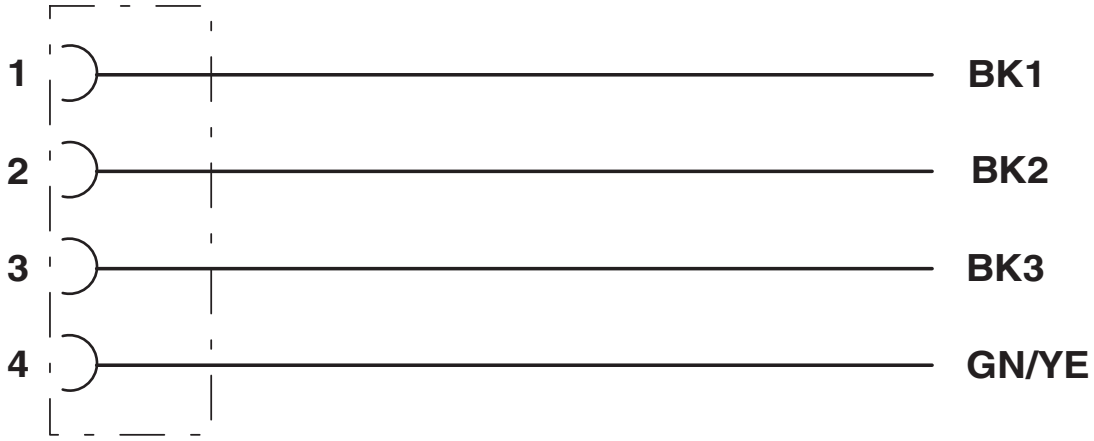

Pin assignment of M12 socket, 4-pos., S-coded, socket side view

Diagram




I = current strength, T = ambient temperature

Circuit diagram




Contact assignment of the M12 socket

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411598

**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

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

### UNSPSC

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|---|---|
| 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

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|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 856927b2-4e05-4756-af08-1dd7c5a4833f |


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