

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

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 rear mounting, Universal, 5-position, Socket, straight, M12-Standard, coding: B, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 0.34 mm<sup>2</sup>, TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238886

## Your advantages

- 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
- All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- For high transmission safety: shield connection to the housing with optional EMC nut

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 1411587            |
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | AB24               |
| Product key                          | ABQCHB             |
| Catalog page                         | Page 50 (C-2-2019) |
| GTIN                                 | 4046356935838      |
| Weight per piece (including packing) | 38.5 g             |
| Weight per piece (excluding packing) | 22.22 g            |
| Customs tariff number                | 85444290           |
| Country of origin                    | DE                 |

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

## 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 | <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.</li></ul> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

|  |                                                                                                                                                                                                                                        |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | The suitable accessories are available online in the accessory section of the product at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>                                                             |
|  | • 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 | Rear mounting M16 x 1.5 XL version, with flat nut, tightening limitation |
| Assembly note | XL version, with flat nut, tightening limitation                         |

## Product properties

|                      |                                   |
|----------------------|-----------------------------------|
| Product type         | Circular connectors (device side) |
| Sensor type          | Universal                         |
| Number of positions  | 5                                 |
| No. of cable outlets | 1                                 |
| Shielded             | no                                |
| Coding               | B                                 |
| Thread type          | M12                               |

## Data management status

|                  |    |
|------------------|----|
| Article revision | 11 |
|------------------|----|

## Insulation characteristics

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

## Material specifications

|                                        |                              |
|----------------------------------------|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Seal material                          | FKM                          |
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA 6.6                       |
| Material for screw connection          | Zinc die-cast, nickel-plated |
| Conductor material                     | Tin-plated Cu litz wires     |

## Electrical properties

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

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

|                           |           |
|---------------------------|-----------|
| Nominal voltage $U_N$     | 60 V (AC) |
|                           | 60 V (DC) |
| Nominal current $I_N$     | 4 A       |
| Max. conductor resistance | 57.6 mΩ/m |

## Connection data

### Conductor connection

|                         |                                       |
|-------------------------|---------------------------------------|
| Connection method       | Individual wires                      |
| Contact connection type | Socket                                |
| Conductor cross section | 0.34 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            | B        |

### Connection 2

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

## Cable/line

|                                 |                                 |
|---------------------------------|---------------------------------|
| Cable length                    | 0.5 m                           |
| Cable type                      | TPE litz wire                   |
| Signal type/category            | Universal                       |
| Wire diameter incl. insulation  | 1.2 mm ±0.07 mm                 |
| Single wire, color              | black, brown, blue, white, gray |
| Cable cross section             | 0.34 mm <sup>2</sup>            |
| Conductor material              | Tin-plated Cu litz wires        |
| Conductor structure signal line | 7x 0.25 mm                      |
| AWG signal line                 | 22                              |
| Material wire insulation        | TPE                             |
| Thickness, insulation           | 0.21 mm                         |
| Nominal voltage, cable          | 300 V                           |
| Test voltage, cable             | 2000 V AC                       |
| Cable resistance                | ≤ 57.6 mΩ/m                     |

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Cable insulation resistance     | ≥ 20 MΩ*km                                      |
| Ambient temperature (operation) | -40 °C ... 85 °C (cable, fixed installation)    |
|                                 | -25 °C ... 85 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

### M12

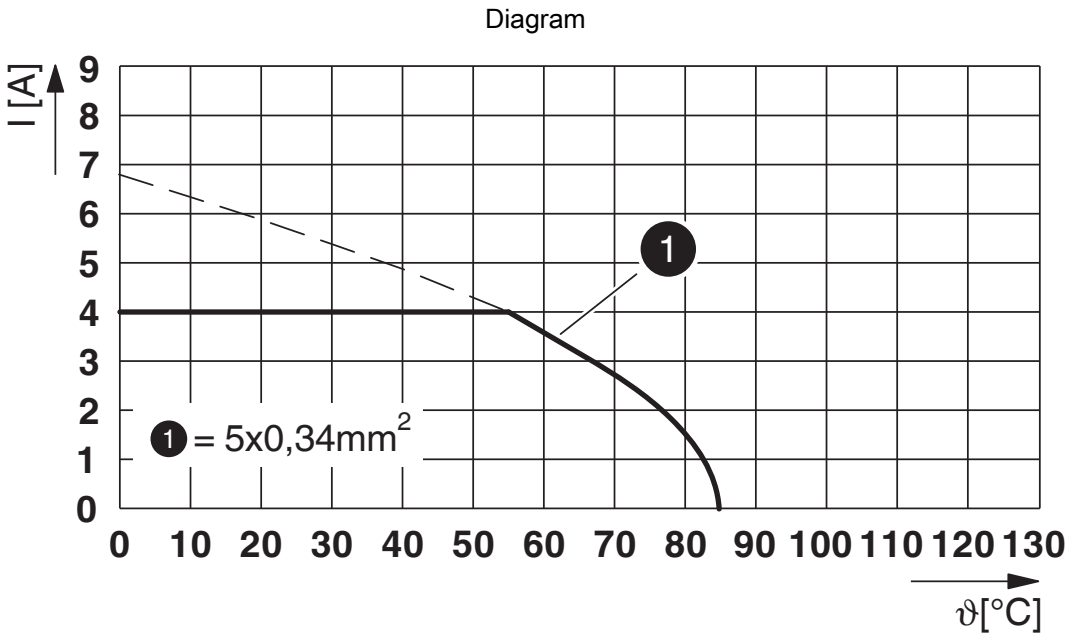
|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-101 |

SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector  
rear mounting

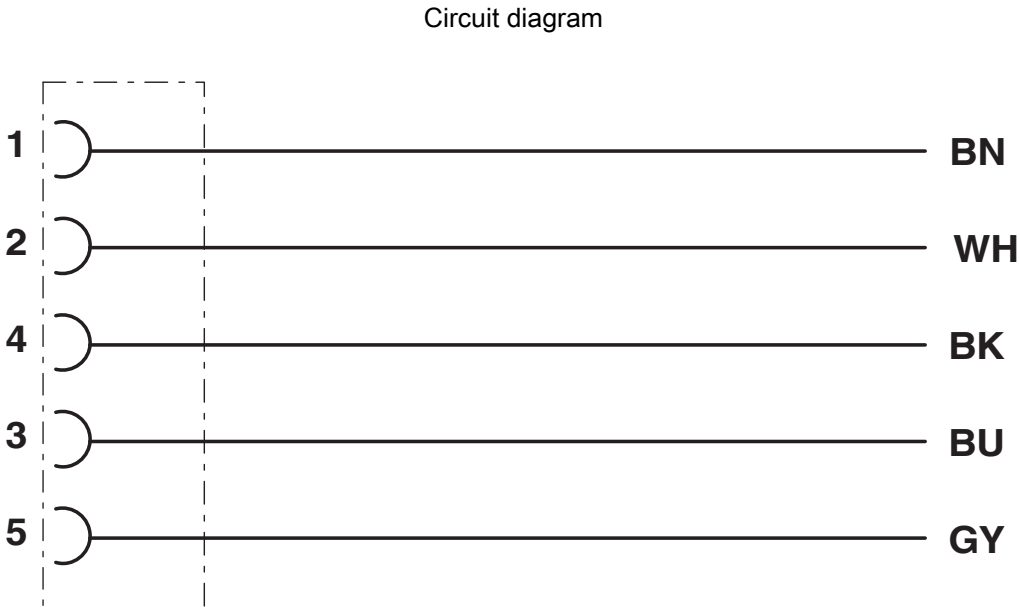


1411587  
<https://www.phoenixcontact.com/us/products/1411587>

Drawings



I = current strength, T = ambient temperature



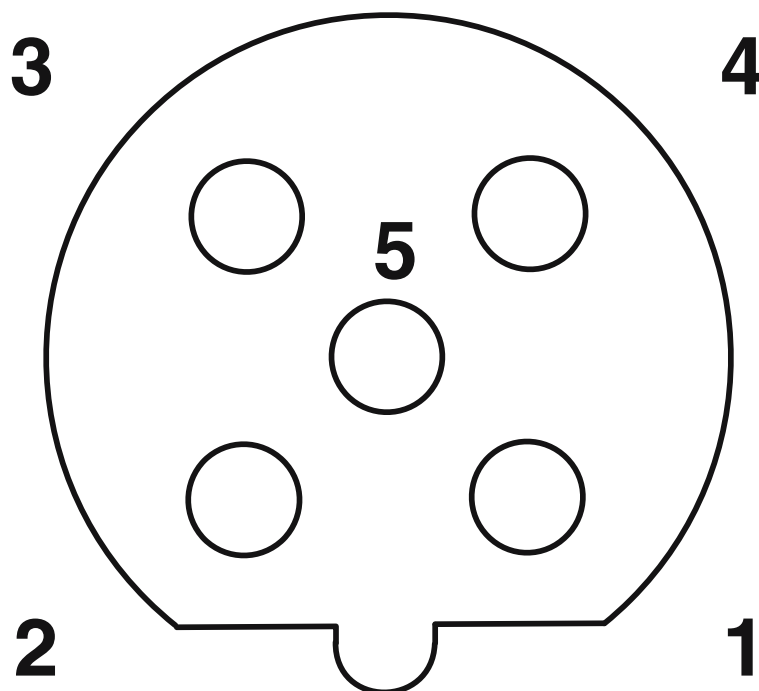
# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

Schematic diagram



Pin assignment M12 socket, 5-pos., B-coded, female side

SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector  
rear mounting



1411587  
<https://www.phoenixcontact.com/us/products/1411587>

Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1411587>

|                                                                                                                                                        |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>cULus Recognized</b><br/>Approval ID: E221474-20140616</div> |                       |                       |                   |                             |
|                                                                                                                                                        | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group keine                                                                                                                                        |                       |                       |                   |                             |
|                                                                                                                                                        | 60 V                  | 4 A                   | 22 - 20           | -                           |

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587

<https://www.phoenixcontact.com/us/products/1411587>

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

# SACC-DSI-M12FSB-5P-M16XL/0,5 - Device connector rear mounting



1411587  
<https://www.phoenixcontact.com/us/products/1411587>

## 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                                    | f3ac1c35-3dc1-4801-9d76-8ff5ebde2d85                                                                                                                                                                                              |

Phoenix Contact 2024 © - 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](mailto:info@phoenixcon.com)