

# 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, coding: S, on free cable end, Rear 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.: 1238897

## 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
Catalog page	Page 283 (C-2-2019)
GTIN	4046356936057
Weight per piece (including packing)	59.8 g
Weight per piece (excluding packing)	50 g
Customs tariff number	85366990
Country of origin	DE

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1411598

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

## 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: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	<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></ul>
	<ul style="list-style-type: none"><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></ul>
	<ul style="list-style-type: none"><li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li></ul>
	<ul style="list-style-type: none"><li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li></ul>
	<ul style="list-style-type: none"><li>• Assembled products may not be manipulated or improperly opened.</li></ul>
	<ul style="list-style-type: none"><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></ul>
	<ul style="list-style-type: none"><li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li></ul>
	<ul style="list-style-type: none"><li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li></ul>
	<ul style="list-style-type: none"><li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li></ul>
	<ul style="list-style-type: none"><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></ul>
	<ul style="list-style-type: none"><li>• Only use tools recommended by Phoenix Contact</li></ul>
	<ul style="list-style-type: none"><li>• Use a protective cap to protect connectors that are not in use.</li></ul>

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1411598

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The suitable accessories are available online in the accessory 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	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	Power
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	S
Thread type	M12

## Data management status

Article revision	10
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## 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	Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, 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

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



1411598

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

Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
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 mm <sup>2</sup>
Tightening torque	0.8 Nm ... 1.3 Nm (Installation-side)

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	> 100
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## 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
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## 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 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)

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



1411598

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

	-25 °C ... 105 °C (Cable, flexible installation)
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## 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 ... 105 °C (Cable, flexible installation)
	-40 °C ... 105 °C (cable, fixed installation)

## Standards and regulations

Flame resistance	in acc. to UL 1581 VW1
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### M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-111
Note	In line with

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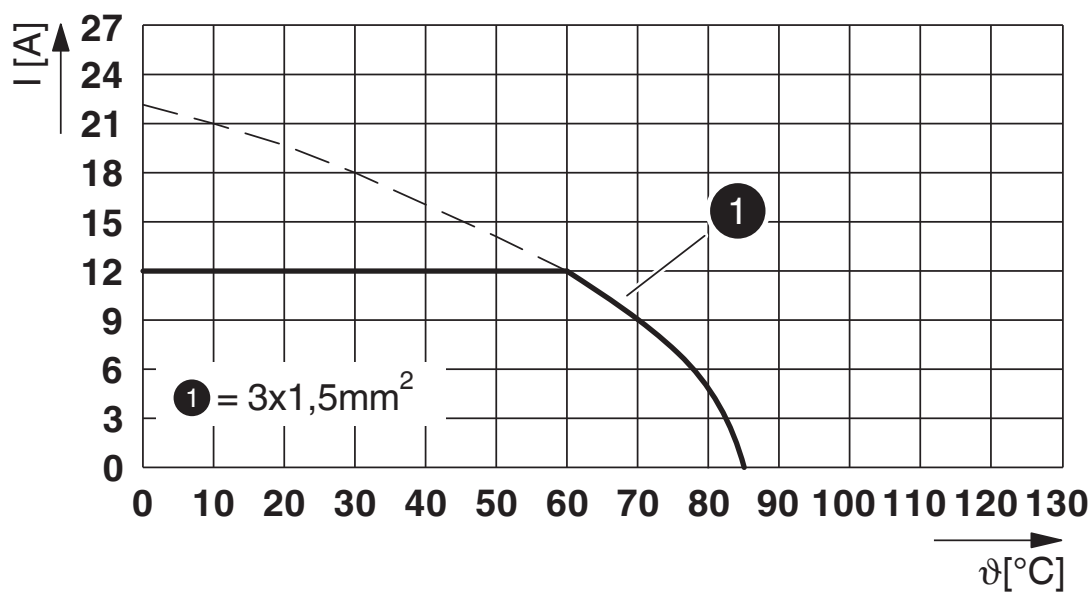


1411598

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

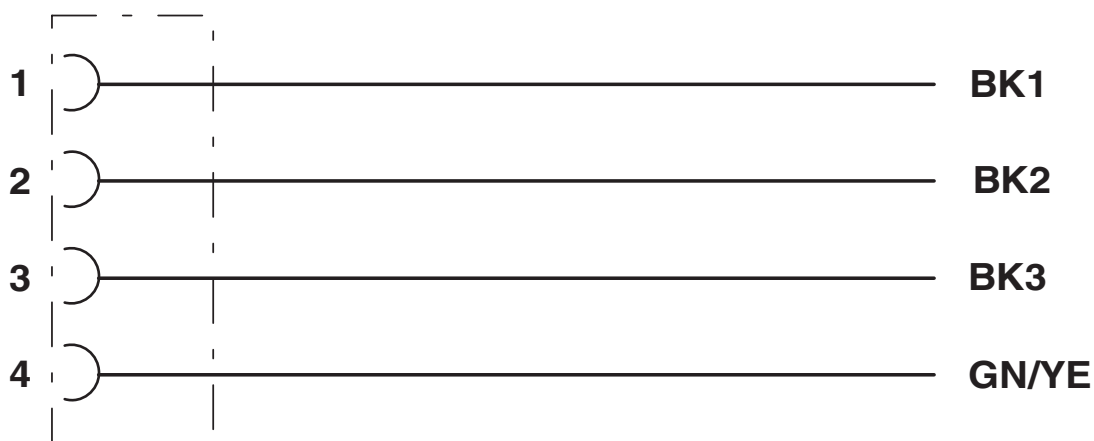
## Drawings

Diagram



$I$  = current strength,  $T$  = ambient temperature

Circuit diagram



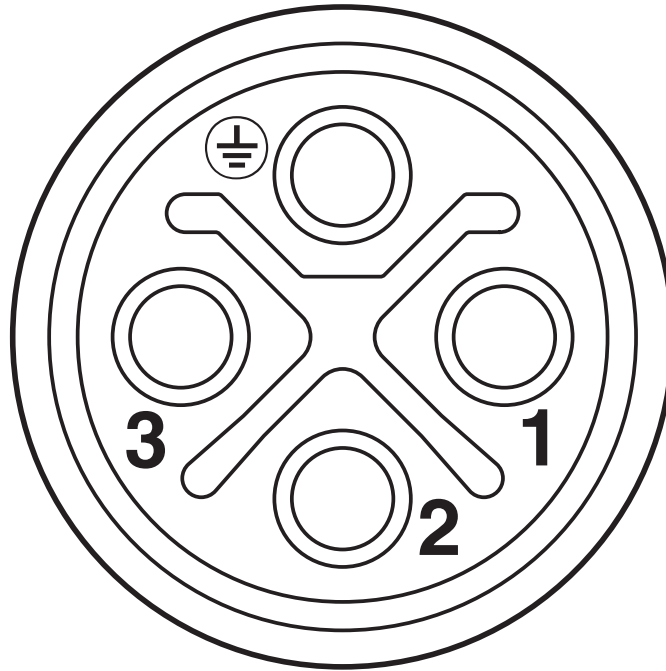
Contact assignment of the M12 socket

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1411598

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

Schematic diagram



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


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




1411598  
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## Approvals

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	<b>cUL Recognized</b> Approval ID: E468743-20190917			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
	600 V	12 A	16 - 16	-

	<b>UL Recognized</b> Approval ID: E468743-20190917			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
	600 V	12 A	16 - 16	-

<b>cULus Recognized</b>				
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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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1411598  
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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	856927b2-4e05-4756-af08-1dd7c5a4833f

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