

# SACC-M12FRS-2PECON-PG 9-M - Power connector



1419642

<https://www.phoenixcontact.com/us/products/1419642>

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Power connector, 3-position, Socket angled M12, coding: S, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm, for alternating current up to 16 A/630 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: AC connectors for up to 16 A and 630 V AC
- Protection against incorrect connection using special S-coding

## Commercial data

Item number	1419642
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF30
Product key	BF2CAB
Catalog page	Page 279 (C-2-2019)
GTIN	4055626181806
Weight per piece (including packing)	27.3 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85366990
Country of origin	DE

## Technical data

### Notes

General	Strip 21 mm off the cable sheath, strip 6 mm off the conductor insulation, crimp the ferrule, then shorten this to 5 mm. Conductor length with shortened ferrule: 20 mm. Connect conductors and tighten the mounting screws with 0.2 Nm.
General	<b>NOTE:</b> Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.

### Mounting

Assembly instructions	The connector pin assignment can be rotated 90° to the cable outlet
Connection method	Screw connection

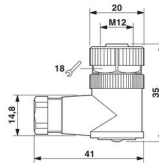
### Product properties

Product type	Circular connector (cable-side)
Number of positions	3
Application	Power supply
No. of cable outlets	1
Shielded	no
Coding	S
Cable outlet	angled
Pg screw connection	Pg9

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Dimensions

Dimensional drawing	
Length	35 mm
Wrench size, union nut	16 mm

### External dimensions

Outside diameter	6 mm ... 8 mm
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### 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> (with ferrule)
	0.75 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (solid)
Connection cross section AWG	18 ... 16 (with ferrule)
Stripping length of the individual wire	5 mm
Tightening torque	0.4 Nm (M12 knurl)
	0.8 Nm ... 1 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	6 kV
Contact resistance	≤ 5 mΩ
Insulation resistance	> 10 GΩ
Nominal voltage U <sub>N</sub>	630 V AC
Nominal current I <sub>N</sub>	16 A (when using 2.5 mm <sup>2</sup> conductors)
	16 A (at 40 °C)

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	> 100
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## Connector

### Connection 1

Head design	Socket
Head cable outlet	angled
Head thread type	M12
Coding	S

## Cable/line

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Stripping length of the individual wire	5 mm
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## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

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

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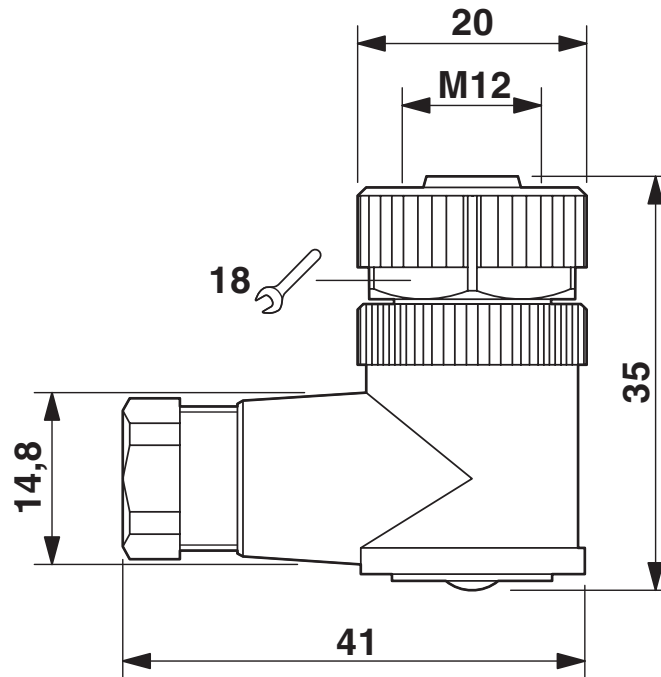


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## Drawings

Dimensional drawing

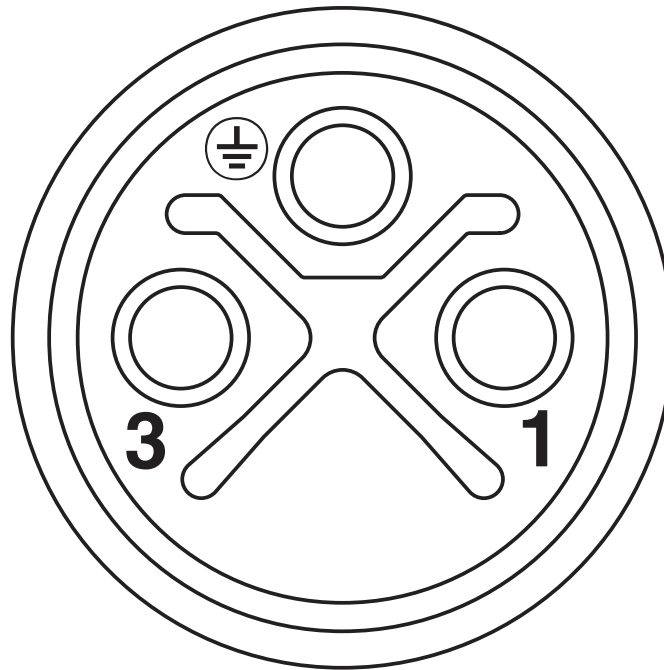


M12 x 1 socket, straight

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Schematic diagram



Pin assignment of M12 socket, 3-pos., S-coded, socket side view

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1419642>

 <b>cUL Recognized</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	600 V	16 A	- 14	-

 <b>UL Recognized</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	600 V	16 A	- 14	-

 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00511	
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<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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## Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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## Accessories

### A 1,5 - 7 - Ferrule

3200263

<https://www.phoenixcontact.com/us/products/3200263>

Ferrule, color: silver



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### PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



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## TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/us/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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## TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/us/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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## TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/us/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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## SACC BIT M12-D20 - Tool

1208445

<https://www.phoenixcontact.com/us/products/1208445>



Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive

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## WIREFOX 6SC - Stripping tool

1212158

<https://www.phoenixcontact.com/us/products/1212158>



Stripping tool, for cables and conductors (especially for cables protected against short circuits and ground leakages) 1.5 - 6 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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## CRIMPFOX 6H - Crimping pliers

1212046

<https://www.phoenixcontact.com/us/products/1212046>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm<sup>2</sup> ... 6 mm<sup>2</sup>, unlockable pressure lock, lateral entry

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