

#### 1408987

https://www.phoenixcontact.com/us/products/1408987

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Power connector, 4-position, Socket angled M12, coding: S, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg11, external cable diameter 8 mm ... 10 mm, for AC current up to 12 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 12 A and 630 V AC
- Protection against incorrect connection using special S-coding

## Commercial data

| Item number                          | 1408987             |
|--------------------------------------|---------------------|
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF30                |
| Product key                          | BF2CAB              |
| Catalog page                         | Page 279 (C-2-2019) |
| GTIN                                 | 4046356862370       |
| Weight per piece (including packing) | 29.8 g              |
| Weight per piece (excluding packing) | 29.8 g              |
| Customs tariff number                | 85366990            |
| Country of origin                    | DE                  |

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# 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  | 4                               |
| Application          | Power supply                    |
| No. of cable outlets | 1                               |
| Shielded             | no                              |
| Coding               | S                               |
| Cable outlet         | angled                          |
| Pg screw connection  | Pg11                            |

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

### Dimensions

| Dimensional drawing    |            |
|------------------------|------------|
| Length                 | 39 mm      |
| Wrench size, union nut | 19 mm      |
| External dimensions    |            |
| Outside diameter       | 8 mm 10 mm |
| Housing                |            |
| Diameter housing       | 20.2 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 mm² 2.5 mm² (solid)   |
| Connection cross section AWG            | 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            | 6 kV   |
|--------------------------------|--|
| Contact resistance             | ≤ 3 mΩ   |
| Insulation resistance          | > 10 GΩ  |
| Nominal voltage U <sub>N</sub> | 630 V AC   |
| 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 | angled |
| Head thread type  | M12    |
| Coding            | S      |

Cable/line



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|     | Stripping length of the individual wire | 5 mm                         |  |
|-----|---|------------------------------|--|
| En  | Environmental and real-life conditions  |                              |  |
|     | Ambient conditions                      |                              |  |
|     | Degree of protection                    | IP67                         |  |
|     | Ambient temperature (operation)         | -40 °C 85 °C (Plug / socket) |  |
| Sta | Standards and regulations               |                              |  |
|     | Standard designation                    | M12 connector                |  |
|     | Standards/specifications                | IEC 61076-2-111              |  |

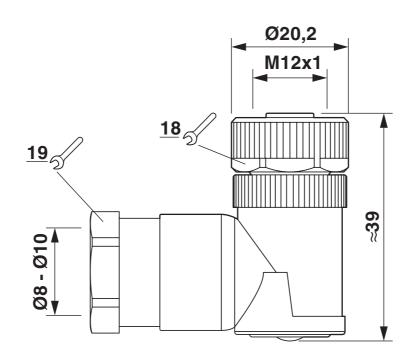


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# Drawings

Dimensional drawing

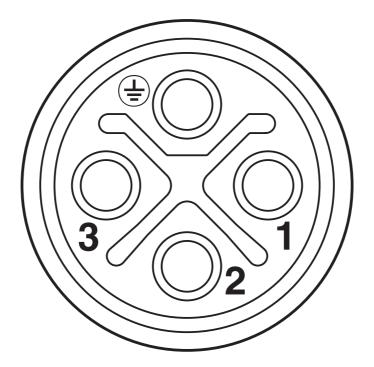


M12 x 1 socket, straight



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Schematic diagram



Pin assignment of M12 socket, 4-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/1408987

| .91       | <b>cUL Recognized</b><br>Approval ID: FILE E 2214 | 474                            |                                |                   |                               |  |
|-----------|---|--------------------------------|--------------------------------|-------------------|-------------------------------|--|
|           |   | 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              | -                             |  |
|           |   |                                |                                |                   |                               |  |
| <b>91</b> | UL Recognized   Approval ID: FILE E 221474        |                                |                                |                   |                               |  |
|           |   | Next and a literation          | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |  |
|           |   | Nominal voltage U <sub>N</sub> | Nominal current IN             | CIUSS SECIOI ANO  | 01033 300001 11111            |  |
|           |   | 600 V                          | 12 A                           | - 16              | -                             |  |
|           |   |                                |                                |                   |                               |  |

cULus Recognized



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# Classifications

### ECLASS

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

### ETIM

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



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

## 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  $\rm Nm$ 



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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

### 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

### **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  $\text{mm}^2$ ... 6  $\text{mm}^2$ , unlockable pressure lock, lateral entry

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