### 1531044

https://www.phoenixcontact.com/pc/products/1531044

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Connector, Universal, 5-position, Plug angled M12, Coding: A, Screw connection, knurl material: Plastic, cable gland Pg11-DUO, external cable diameter 2.1 mm ... 3 mm / 4 mm ... 5.2 mm



### 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
- · Save space: connect two sensors to one connector with a multiple grommet

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## **Commercial Data**

| Item number                          | 1531044            |
|--------------------------------------|--------------------|
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Product Key                          | BF2CAA             |
| Catalog Page                         | Page 25 (C-2-2019) |
| GTIN                                 | 4017918986438      |
| Weight per Piece (including packing) | 25.1 g             |
| Weight per Piece (excluding packing) | 25.1 g             |
| Customs tariff number                | 85366990           |
| Country of origin                    | DE                 |

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## **Technical Data**

### Notes

| Assembly instruction: | NOTE: Observe the permissible bending radii when laying<br>conductors, since the degree of protection may be put in<br>jeopardy if the bending forces are too high. Alleviate mechanical<br>loads upstream of the connector, e.g. by using cable ties. |
|-----------------------|--|
|-----------------------|--|

### Product properties

| Product type               | Circular connector (cable-side) |  |  |
|----------------------------|---------------------------------|--|--|
| Number of positions        | 5                               |  |  |
| No. of cable outlets       | 2                               |  |  |
| Shielded                   | no                              |  |  |
| Coding                     | A - standard                    |  |  |
| Cable outlet               | angled                          |  |  |
| Pg screw connection        | Pg11                            |  |  |
| Insulation characteristics |                                 |  |  |
| Overvoltage category       | II                              |  |  |
| Degree of pollution        | 3                               |  |  |

### Ambient conditions

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

### Dimensions

| Dimensional drawing         |  |
|-----------------------------|--|
| Length                      | 41 mm  |
| External dimensions         |  |
| Outside diameter            | 2x 2.1 mm 3 mm (when using the seal for small outer cable diameters) |
|                             | 2x 4 mm 5.2 mm (when using the seal for large outer cable diameters) |
| Housing                     |  |
| Diameter housing            | 20 mm  |
| onnector                    |  |
| Insertion/withdrawal cycles | ≥ 50   |



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#### Header 1

| Head design                 | Plug             |  |
|-----------------------------|------------------|--|
| Head cable outlet           | angled           |  |
| Head thread type            | M12              |  |
| Coding                      | A-coded          |  |
| Number of positions         | 5                |  |
| Coding                      | A - standard     |  |
| Insertion/withdrawal cycles | ≥ 50             |  |
| Connection method           | Screw connection |  |
| Contact material            | CuZn             |  |
| Contact surface material    | CuSnZn           |  |
| Number of positions         | 5                |  |
| Coding                      | A - standard     |  |
| Insertion/withdrawal cycles | ≥ 50             |  |
| Connection method           | Screw connection |  |
| Contact material            | CuZn             |  |
| Contact surface material    | CuSnZn           |  |

### **Electrical properties**

| Rated surge voltage            | 1.5 kV   |
|--------------------------------|----------|
| Contact resistance             | ≤ 8 mΩ   |
| Insulation resistance          | ≥ 100 MΩ |
| Nominal voltage U <sub>N</sub> | 48 V AC  |
|                                | 60 V DC  |
| Nominal current I <sub>N</sub> | 4 A      |

### Material specifications

| Sealing material         | NBR     |
|--------------------------|---------|
| Material of grip body    | PA      |
| Contact material         | CuZn    |
| Contact surface material | CuSnZn  |
| Contact carrier material | PA      |
| Cable gland material     | Plastic |

### Connection data

| Conductor connection             |   |  |  |
|----------------------------------|---|--|--|
| Connection method                | Screw connection                          |  |  |
| Conductor cross section flexible | 0.25 mm <sup>2</sup> 0.75 mm <sup>2</sup> |  |  |
| Cross section AWG                | 24 18                                     |  |  |

### Mounting

| Assembly instructions | The wires can be connected both with ferrules and without ferrules |  |
|-----------------------|--|--|
|                       | The connector pin assignment can be rotated 90° to the cable       |  |

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|            |                                    | outlet   |  |
|------------|------------------------------------|--|--|
|            |                                    | This connector includes one seal for small and one seal for large outer cable diameters. |  |
| Standard   | ls and regulations                 |  |  |
| Stand      | dards/specifications               | IEC 61076-2-101  |  |
| Cable / li | ne                                 |  |  |
| Cable st   | tructure                           |  |  |
| Signa      | al type/category                   | Universal  |  |
| Strip      | ping length of the individual wire | 5 mm   |  |

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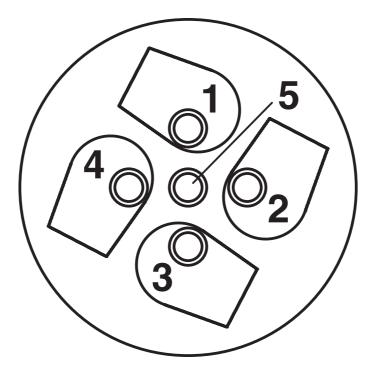
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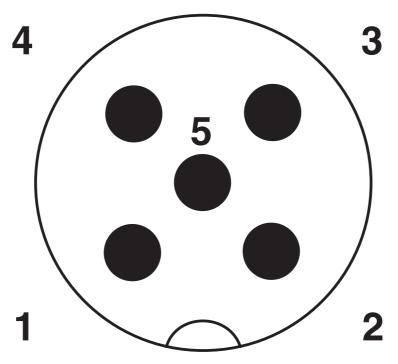
## Drawings

Schematic diagram



Cable connection side M12 (screw connection)

Schematic diagram



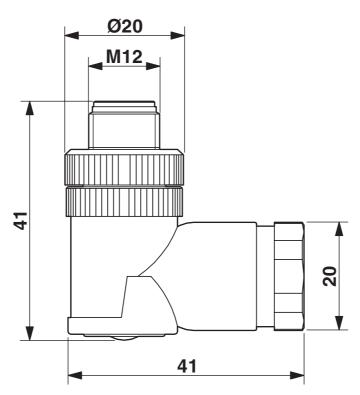
Pin assignment M12 male connector, 5-pos., A-coded, male side



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Dimensional drawing



M12 x 1 male plug, angled



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## Approvals

| <b>.R</b> . | CUL Recognized<br>Approval ID: FILE E 221474 |                                |                                |                   |                               |
|-------------|--|--------------------------------|--------------------------------|-------------------|-------------------------------|
|             |  | Nominal Voltage U <sub>N</sub> | Nominal Current I <sub>N</sub> | Cross Section AWG | Cross Section mm <sup>2</sup> |
|             |  | 125 V                          | 4 A                            | -                 | -                             |
|             |  |                                |                                |                   |                               |
| <b>91</b>   | UL Recognized<br>Approval ID: FILE E 221     | 474                            |                                |                   |                               |
|             |  | Nominal Voltage U <sub>N</sub> | Nominal Current I <sub>N</sub> | Cross Section AWG | Cross Section mm <sup>2</sup> |
|             |  | 125 V                          | 4 A                            | -                 | -                             |
|             |  |                                |                                |                   |                               |

cULus Recognized

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## Classifications

### ECLASS

| ECLASS-9.0 27440102   ECLASS-11.0 27440102 | ECLASS-10.0.1 | 27440102 |
|--|---------------|----------|
| ECLASS-11.0 27440102                       | ECLASS-9.0    | 27440102 |
|  | ECLASS-11.0   | 27440102 |

### ETIM

|        | ETIM 8.0    | 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

#### Cable reel

Cable reel - SAC-3P-100,0-PUR/0,25 - 1501689 https://www.phoenixcontact.com/pc/products/1501689



Cable reel

Cable reel - SAC-3P-100,0-PUR/0,34 - 1501650 https://www.phoenixcontact.com/pc/products/1501650



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 3-wire, color single wire: brown, blue, black, cable length: 100 m

By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 3-wire, color

single wire: brown, blue, black, cable length: 100 m

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Cable reel

Cable reel - SAC-4P-100,0-PUR/0,25 - 1501692 https://www.phoenixcontact.com/pc/products/1501692



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

### Cable reel

Cable reel - SAC-4P-100,0-PUR/0,34 - 1501663 https://www.phoenixcontact.com/pc/products/1501663



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

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Cable reel

Cable reel - SAC-5P-100,0-PUR/0,34 - 1501676 https://www.phoenixcontact.com/pc/products/1501676



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 5-wire, color single wire: brown, white, blue, black, green-yellow, cable length: 100 m

#### Screwdriver

Screwdriver - SZF 1-0,6X3,5 - 1204517 https://www.phoenixcontact.com/pc/products/1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip

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Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429 https://www.phoenixcontact.com/pc/products/1208429



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

### Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224 https://www.phoenixcontact.com/pc/products/1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0. 3 - 1.2  $\rm Nm$ 

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### Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600 https://www.phoenixcontact.com/pc/products/1212600



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

### Sealing cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873 https://www.phoenixcontact.com/pc/products/1430873

 $\mathsf{M12}$  sealing cap made of plastic with fixing band, for sensor cables, for free  $\mathsf{M12}$  plugs



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Tool

Tool - SACC BIT M12-D20 - 1208445 https://www.phoenixcontact.com/pc/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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