

1662308

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Connector, Universal, 5-position, Socket angled M12, coding: A, Screw connection, knurl material: Plastic, cable gland Pg7, external cable diameter 4 mm ... 6 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

#### Commercial data

| Item number                          | 1662308            |
|--------------------------------------|--------------------|
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | BF30               |
| Product key                          | AF2CAA             |
| Catalog page                         | Page 22 (C-2-2019) |
| GTIN                                 | 4017918100476      |
| Weight per piece (including packing) | 16.89 g            |
| Weight per piece (excluding packing) | 15.6 g             |
| Customs tariff number                | 85366990           |
| Country of origin                    | DE                 |



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### Technical data

#### Notes

| Assembly note | NOTE: Observe the permissible bending radii when routing   |
|---------------|--|
|               | cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream |
|               | of the connector, e.g., by using cable ties.   |

### Mounting

| Assembly note | The connector pin assignment can be rotated 90° to the cable |
|---------------|--|
|               | outlet   |

### Product properties

| Product type         | Circular connector (cable-side) |
|----------------------|---------------------------------|
| Sensor type          | Universal                       |
| Number of positions  | 5                               |
| No. of cable outlets | 1                               |
| Shielded             | no                              |
| Coding               | A                               |
| Cable outlet         | angled                          |
| Pg screw connection  | Pg7                             |

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

#### **Dimensions**

| Dimensional drawing                    | 18 20 18 18 18 18 18 18 18 18 18 18 18 18 18 |
|--|--|
| Length                                 | 35 mm  |
| External dimensions                    |  |
| Outside diameter                       | 4 mm 6 mm                                    |
| Housing                                |  |
| Diameter housing                       | 20 mm  |
| Material specifications                |  |
| Flammability rating according to UL 94 | HB   |

#### N

| Flammability rating according to UL 94 | НВ   |
|--|------|
| Seal material                          | NBR  |
| Material of grip body                  | PA   |
| Contact material                       | CuZn |



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| Contact surface material      | CuSnZn  |
|-------------------------------|---------|
| Contact carrier material      | PA      |
| Material for screw connection | Plastic |

#### Connection data

#### Conductor connection

| Connection method                       | Screw connection  |
|---|---|
| Connection cross section                | 0.25 mm <sup>2</sup> 0.75 mm <sup>2</sup> (without ferrule) |
|   | 0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (with ferrule)    |
|   | 0.25 mm² 0.75 mm² (solid)                                   |
| Connection cross section AWG            | 24 18 (without ferrule)                                     |
|   | 26 20 (with ferrule)  |
| Stripping length of the individual wire | 5 mm  |
| Tightening torque                       | 0.4 Nm (M12 knurl)  |
|   | 0.2 Nm (Screw terminal blocks)                              |
|   | 0.8 Nm 1 Nm (Pressure screw)                                |

### 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      |

### Mechanical properties

#### Mechanical data

| Insertion/withdrawal cycles | ≥ 50 |
|-----------------------------|------|
|-----------------------------|------|

#### Connector

### Connection 1

| Head design       | Socket |
|-------------------|--------|
| Head cable outlet | angled |
| Head thread type  | M12    |
| Coding            | A      |

#### Cable/line

| Signal type/category                    | Universal |
|---|-----------|
| Stripping length of the individual wire | 5 mm      |

### Environmental and real-life conditions

#### Ambient conditions

| Degree of protection | IP67 |
|----------------------|------|



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| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |  |
|---------------------------------|------------------------------|--|
| Standards and regulations       |                              |  |
|                                 |                              |  |
| M12                             |                              |  |
| -                               | M12 connector                |  |

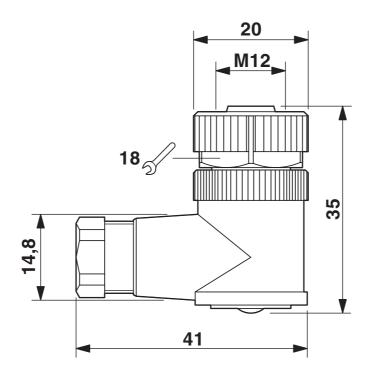


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## Drawings

### Dimensional drawing



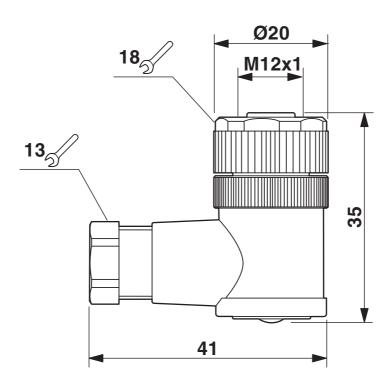
M12 x 1 socket, angled



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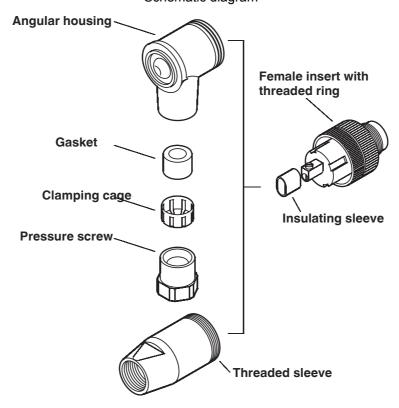


### Dimensional drawing



M12 x 1 socket, angled

### Schematic diagram



Male/Female M12



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Schematic diagram

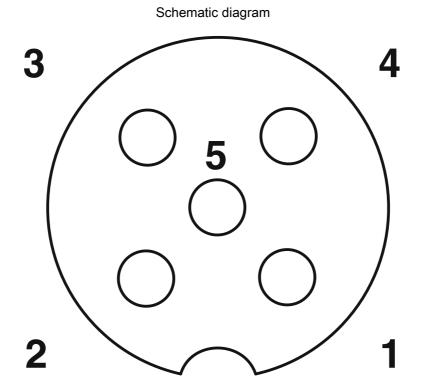
5

0

4

3

Cable connection side M12 (screw connection)



Pin assignment M12 socket, 5-pos., A-coded, socket side view



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### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1662308

| cUL Recognized 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> |
|   |  | 60 V                           | 4 A                            | -                 | -                             |

| UL Recognized 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> |
|  |  | 60 V                           | 4 A                            | -                 | -                             |



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## Classifications

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|---|---|----|-----|
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| - |   | Α. | ١.٦ |

|    | ECLASS-13.0 | 27440116 |
|----|-------------|----------|
| Εī | ГІМ         |          |
|    | ETIM 9.0    | EC002635 |
| U  | NSPSC       |          |
|    | UNSPSC 21.0 | 39121400 |



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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                                    | 10fe84bf-46b6-47e4-9b9b-2ed509513e98  |

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