

1106330

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Device connector front mounting, Power, 3-position, Socket, straight, M12-Standard, S-coding, on free cable end, Individual wires, cable length: 0.11 m, 1.31 mm $^2$ , UL/cUL stranded hook-up wire, potted, this item is expected to be lead-free from Q4 2025 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

## Your advantages

- · For compact devices: transmit high power in a confined space
- · For industrial infrastructure applications
- · Protection against mismatching thanks to S-coding
- · 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                          | 1106330       |
|--------------------------------------|---------------|
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB24          |
| Product key                          | ABQCFG        |
| GTIN                                 | 4063151003074 |
| Weight per piece (including packing) | 31.4 g        |
| Weight per piece (excluding packing) | 19.072 g      |
| Customs tariff number                | 85444290      |
| Country of origin                    | DE            |



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## Technical data

### Notes

| ies                |  |
|--------------------|--|
| 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.   |
| General            | Contact connection method: Crimp connection  |
| afety 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> <li>WARNING: Commission properly functioning products only.</li> <li>The products must be regularly inspected for damage.</li> <li>Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>  |
|                    | <ul> <li>WARNING: Only electrically qualified personnel may install and<br/>operate the product. They must observe the following safety<br/>notes. The qualified personnel must be familiar with the basics of<br/>electrical engineering. They must be able to recognize and<br/>prevent danger. The relevant symbol on the packaging indicates<br/>that only personnel familiar with electrical engineering are<br/>allowed to install and operate the product.</li> </ul> |
|                    | <ul> <li>The products are suitable for applications in plant, controller,<br/>and electrical device engineering.</li> </ul>  |
|                    | <ul> <li>When operating the connectors in outdoor applications, they<br/>must be separately protected against environmental influences.</li> </ul>   |
|                    | <ul> <li>Assembled products may not be manipulated or improperly opened.</li> </ul>  |
|                    | <ul> <li>Only use mating connectors that are specified in the technical<br/>data of the standards listed (e.g. the ones listed in the product<br/>accessories online at phoenixcontact.com/products).</li> </ul>   |
|                    | <ul> <li>When using the product in direct connection with third-party<br/>manufacturers, the user is responsible.</li> </ul>   |
|                    | <ul> <li>For operating voltages &gt; 50 V AC, conductive connector<br/>housings must be grounded</li> </ul>  |
|                    | <ul> <li>Ensure that when laying the cable, the tensile load on the<br/>connectors does not exceed the upper limit specified in the<br/>standards.</li> </ul>  |
|                    | Observe the corresponding technical data. You will find information:  o On the product  o On the packing label  o In the supplied documentation  o Online at phoenixcontact.com/products under the product   |
|                    | Only use tools recommended by Phoenix Contact  |
|                    | Use a protective cap to protect connectors that are not in use.  |

The suitable accessories are available online in the accessory



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| section of the product at phoenixcontact.com/products  |
|--|
| <ul> <li>Ensure that the protective or functional ground has been<br/>properly connected.</li> </ul>   |
| 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  |
| <ul> <li>The connector warms up in normal operation. Depending on the<br/>ambient conditions, the surface of the connector can continue to<br/>warm up. In this case, the user is responsible for posting<br/>warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul> |
|  |
| Front mounting (M16 x 1,5)   |
| 3 Nm 4 Nm (M12 connector)  |
|  |
| Circular connectors (device side)  |
| Circular connectors (device side)  Power   |
| Power  |
| 3  |
| 1  |
| no   |
| S  |
| M12  |
|  |
|  |
| III  |
| 3  |
|  |
| PUR (potted)   |
| V0   |
| FKM  |
| CuZn   |
| Au   |
| PA   |
| Zinc die-cast, nickel-plated   |
| Bare Cu litz wires   |
|  |
| 630 V  |
| 6 kV AC  |
| 6 kV AC  |
| ≤ 3 mΩ   |
| ≥ 100 MΩ   |
|  |



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| Nominal voltage U <sub>N</sub> | 630 V |
|--------------------------------|-------|
| Nominal current I <sub>N</sub> | 16 A  |
| Test voltage                   | 6 kV  |

## Connection data

#### Conductor connection

| Connection method       | Individual wires          |
|-------------------------|---------------------------|
| Contact connection type | Socket                    |
| Conductor cross-section | 1.31 mm²                  |
| Tightening torque       | 3 Nm 4 Nm (M12 connector) |

## Mechanical properties

### Mechanical data

| Insertion/withdrawal cycles | > 100 |
|-----------------------------|-------|

### 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 |
|---------------|----------------|
| rioda doolgii | noo cable ona  |

## Cable/line

| Cable length                    | 0.11 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, green/yellow               |  |
| Cable cross section             | 1.31 mm²                                     |  |
| 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)  |  |
|                                 | -25 °C 105 °C (Cable, flexible installation) |  |



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### Environmental and real-life conditions

### Ambient conditions

| Degree of protection  | IP65   |  |
|---|--|--|
|   | IP67   |  |
| Ambient temperature (operation) (male connector/female connector) | -25 °C 85 °C (Plug / socket)                 |  |
| Ambient temperature (operation) (Cable, fixed installation)       | -40 °C 85 °C (without mechanical actuation)  |  |
| Ambient temperature (operation) (Cable, flexible installation)    | -25 °C 105 °C (Cable, flexible installation) |  |
| Ambient temperature (operation) (Cable, fixed installation)       | -40 °C 105 °C (cable, fixed installation)    |  |
| UL Type Rating  | Type 4 (indoor use only)                     |  |

## Standards and regulations

| Flame resistance                            | in acc. to UL 1581 VW1       |  |
|---|------------------------------|--|
| Standard designation M12 circular connector |                              |  |
| Standards/specifications                    | according to IEC 61076-2-111 |  |

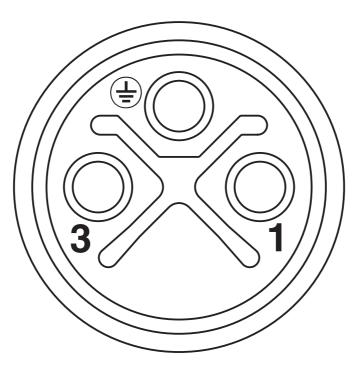


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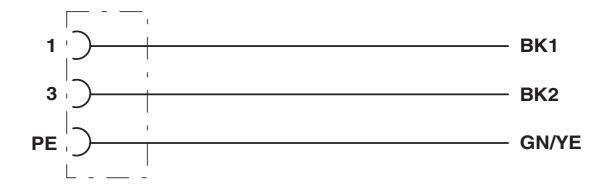
## Drawings





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

Circuit diagram



Contact assignment of the M12 socket



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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1106330

| . <b>9</b> 1 | cUL Recognized 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> |
| keine        |  |                                |                                |                   |                               |
|              |  | 600 V                          | 12 A                           | 16                | -                             |

| <i>7</i> .1 | <b>UL Recognized</b> Approval ID: E468743-2 | 0190917                        |                                |                   |                               |  |
|-------------|---|--------------------------------|--------------------------------|-------------------|-------------------------------|--|
|             |   | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |  |
| keine       |   |                                |                                |                   |                               |  |
|             |   | 600 V                          | 12 A                           | 16                | -                             |  |



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## Classifications

### **ECLASS**

|    | ECLASS-13.0 | 27440103 |  |  |
|----|-------------|----------|--|--|
|    | ECLASS-15.0 | 27440103 |  |  |
|    |             |          |  |  |
| E٦ |             |          |  |  |
|    | ETIM 9.0    | EC003570 |  |  |
| U  | UNSPSC      |          |  |  |
|    | 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                                    | 142f40c8-13d9-4132-b2fa-96b94ea185d4  |  |

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