

1411608

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Device connector front mounting, Power, 4-position, Pin, straight, M12-Standard, T-coding, on free cable end, Individual wires, cable length: 0.5 m, 1.31 mm², 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
- Easy-to-install, optimized XL housing contour with wrench size 19
- Mechanical tightening limitation for long-term-stable gasket
- · 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 | 1411608 |
|--------------------------------------|---------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB24 |
| Product key | ABQCEG |
| GTIN | 4046356936224 |
| Weight per piece (including packing) | 55.5 g |
| Weight per piece (excluding packing) | 43.59 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |



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Technical data

Notes

| 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 |

Mounting

| Mounting type | Front mounting (M16 x 1.5, XL variant, tightening limitation) |
|-------------------|---|
| Tightening torque | 1.5 Nm 2 Nm (Installation-side) |

Product properties

| Product type | Circular connectors (device side) |
|----------------------------|-----------------------------------|
| Application | Power |
| Sensor type | Power |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| No. of power contacts | 4 |
| Shielded | no |
| Coding | Т |
| Thread type | M12 |
| Insulation characteristics | |
| Overvoltage category | III |

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Material specifications

Degree of pollution

| Material Molding compound | PUR (potted) |
|--|------------------------------|
| Flammability rating according to UL 94 | V0 |
| Seal material | FKM |
| Contact material | CuZn |
| Contact surface material | Au |
| Contact carrier material | PA |
| Material for screw connection | Zinc die-cast, nickel-plated |
| Conductor material | Bare Cu litz wires |

Electrical properties

| Rated surge voltage | 1.5 kV |
|---------------------|--------------|
| Rated surge voltage | 1.5 kV AC/DC |
| Contact resistance | ≤ 3 mΩ |



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| Insulation resistance | ≥ 100 MΩ |
|--------------------------------|----------|
| Nominal voltage U _N | 63 V DC |
| Nominal current I _N | 12 A |
| Test voltage | 1.5 kV |
| Test voltage Core/Core | 5 kV |

Connection data

Conductor connection

| Connection method | Individual wires |
|-------------------------|---------------------------------|
| Contact connection type | Pin |
| Conductor cross-section | 1.31 mm² |
| Tightening torque | 1.5 Nm 2 Nm (Installation-side) |

Mechanical properties

Mechanical data

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

Connector

Connection 1

| Head design | Pin |
|-------------------|----------|
| Head cable outlet | straight |
| Head thread type | M12 |
| Head locking type | Standard |
| Coding | Т |

Connection 2

| Head design | free cable end |
|-------------|----------------|

Cable/line

| Cable length | 0.5 m |
|--------------------------------|---|
| Cable type | UL/cUL stranded hook-up wire |
| Signal type/category | Power |
| Wire diameter incl. insulation | 2 mm |
| Single wire, color | black, brown, blue, white |
| Cable cross section | 1.31 mm² |
| Conductor material | Bare Cu litz wires |
| AWG signal line | 16 |
| Material wire insulation | mPPE |
| Test voltage Core/Core | 5 kV |
| Halogen-free | yes |
| Flame resistance | in acc. to UL 1581 VW1 |
| | -40 °C 85 °C (without mechanical actuation) |



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| Ambient temperature (operation) | -40 °C 85 °C (without mechanical actuation) |
|---------------------------------|--|
| | -25 °C 105 °C (Cable, flexible installation) |

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 | |

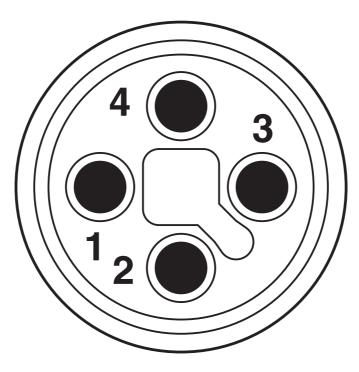


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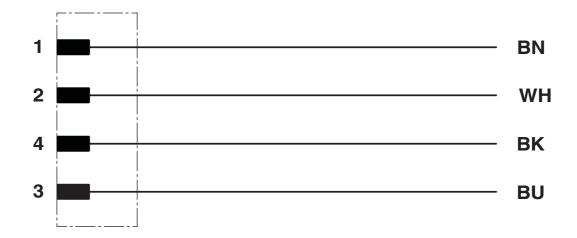
Drawings





Connector pin assignment of M12 plug, 4-pos., T-coded, view of pin side

Circuit diagram



Contact assignment of the M12 plug



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411608

| . 91 | cUL Recognized Approval ID: E468743-20190917 | | | | |
|-------------|--|--------------------------------|--------------------------------|-------------------|-------------------------------|
| | | Nominal voltage U _N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| keine | | | | | |
| | | 63 V | 12 A | 16 | - |

| 7/ | UL Recognized Approval ID: E468743-20190917 | | | |
|-------|---|--------------------------------|-------------------|-------------------------------|
| | Nominal voltage U_N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| keine | | | | |
| | 63 V | 12 A | 16 | - |



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Classifications

ECLASS

| | ECLASS-13.0 | 27440103 |
|--------|-------------|----------|
| | ECLASS-15.0 | 27440103 |
| ETIM | | |
| | ETIM 9.0 | EC003570 |
| 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 | d3116304-3e4c-4fb8-bf59-633fed15c5e0 |

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