

1411582

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Device connector front mounting, Universal, 12-position, Pin, straight, M12-Standard, coding: A, on free cable end, Front mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 0.14 mm², TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238881

Your advantages

- · 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
- · All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

| Item number | 1411582 | | |
|--------------------------------------|--------------------|--|--|
| Packing unit | 1 pc | | |
| Minimum order quantity | 1 pc | | |
| Sales key | AB24 | | |
| Product key | ABQCEB | | |
| Catalog page | Page 39 (C-2-2019) | | |
| GTIN | 4046356936101 | | |
| Weight per piece (including packing) | 27.6 g | | |
| Weight per piece (excluding packing) | 27.6 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 version, tightening limitation | | |
|-----------------------|--|--|--|
| Assembly instructions | XL version, tightening limitation | | |

Product properties

| Product type | Circular connectors (device side) | |
|----------------------|-----------------------------------|--|
| Application | Signal | |
| Sensor type | Universal | |
| Number of positions | 12 | |
| No. of cable outlets | 1 | |
| Shielded | no | |
| Coding | A | |
| Thread type | M12 | |

Insulation characteristics

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

Material specifications

| Flammability rating according to UL 94 | V0 |
|--|------------------------------|
| Seal material | FKM |
| Contact material | CuZn |
| Contact surface material | Au |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast, nickel-plated |
| Conductor material | Tin-plated Cu litz wires |

Electrical properties

| Rated surge voltage | 0.8 kV |
|--------------------------------|--------------------------|
| Contact resistance | $\leq 3 \text{ m}\Omega$ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 30 V (AC) |
| | 30 V (DC) |



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| Nominal current I _N | 1.5 A |
|---------------------------------|--|
| Max. conductor resistance | 57.6 mΩ/m |
| Connection data | |
| | |
| Conductor connection | |
| Connection method | Individual wires |
| Contact connection type | Pin |
| Conductor cross section | 0.14 mm ² |
| Tightening torque | 0.8 Nm 1.3 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 | А |
| | |
| Connection 2 Head design | free cable end |
| neau design | |
| Cable/line | |
| Cable length | 0.5 m |
| Cable type | TPE litz wire |
| Signal type/category | Universal |
| Wire diameter incl. insulation | 1.1 mm ±0.05 mm |
| Single wire, color | brown, blue, white, green, pink, yellow, black, gray, red, violet, gray/pink, red/blue |
| Cable cross section | 0.14 mm ² |
| Conductor material | Tin-plated Cu litz wires |
| Conductor structure signal line | 7x 0.16 mm |
| AWG signal line | 26 |
| Material wire insulation | TPE |
| Thickness, insulation | 0.21 mm (Core insulation) |
| Nominal voltage, cable | 300 V |
| Test voltage, cable | 2000 V AC |
| Cable resistance | ≤ 57.6 mΩ/m |
| Cable insulation resistance | ≥ 20 MΩ*km |



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| Ambient temperature (operation) | -40 °C 85 °C (cable, fixed installation) | |
|---------------------------------|---|--|
| | -25 °C 85 °C (Cable, flexible installation) | |

Environmental and real-life conditions

| Ambient conditions | | | |
|---------------------------------|---|--|--|
| Degree of protection | IP67 | | |
| | IP65/IP67 | | |
| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket) | | |
| | -40 °C 85 °C (without mechanical actuation) | | |
| | -25 °C 85 °C (Cable, flexible installation) | | |
| | -40 °C 85 °C (cable, fixed installation) | | |

Standards and regulations

M12

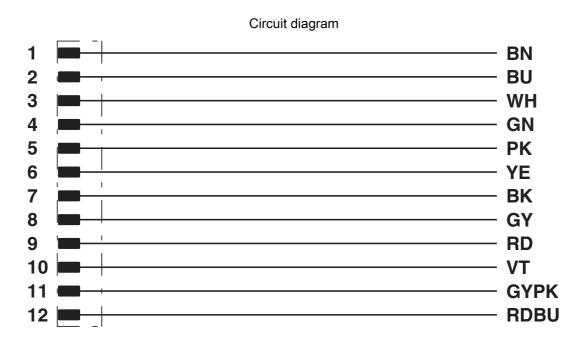
| Standard designation | M12 connector | |
|--------------------------|-----------------|--|
| Standards/specifications | IEC 61076-2-101 | |



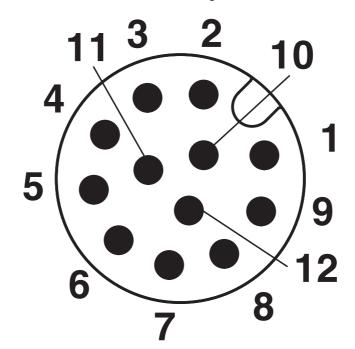
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Drawings



Schematic diagram



Pin assignment M12 male connector, 12-pos., male side view



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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411582

| c FLL us | cULus Recogniz Approval ID: E221474 | red I-20140616 | | | |
|-----------------|---|--------------------------------|--------------------------------|-------------------|-------------------------------|
| | | Nominal voltage U _N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| | | 30 V | 1.5 A | 26 - 26 | - |



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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

EU RoHS

| Fulfills EU RoHS substance requirements | Yes |
|---|--|
| Exemption | 6(c) |
| China RoHS | |
| nvironment 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 | f4ca34f0-7420-48a9-9d4f-9a888316df90 |
| | |



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Accessories

SACC-E-MU-M16 - Flat nut

1504097 https://www.phoenixcontact.com/us/products/1504097

Flat nut, Screw mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239863



PROT-M12 FS - Sealing cap

1560251 https://www.phoenixcontact.com/us/products/1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field



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PROT-M12 FS-M - Sealing cap

1430488

https://www.phoenixcontact.com/us/products/1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

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