

SACC-E-M12MS-12P-M16XL/0,5 - Device connector front mounting



1411582

<https://www.phoenixcontact.com/us/products/1411582>

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Device connector front mounting, Universal, 12-position, Pin, straight, M12-Standard, A-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.14 mm², TPE litz wire, potted, this item is expected to be lead-free from Q2 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

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 |
| GTIN | 4046356936101 |
| Weight per piece (including packing) | 28 g |
| Weight per piece (excluding packing) | 26.17 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 | 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

| | |
|--|------------------------------|
| 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 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 | ≤ 3 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 30 V (AC) |

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| | |
|---------------------------|-----------|
| | 30 V (DC) |
| 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 | 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 | A |

Connection 2

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

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 |

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| | |
|---------------------------------|---|
| Cable insulation resistance | ≥ 20 MΩ*km |
| 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 | IP65 |
| | IP67 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C (Plug / socket) |
| | -40 °C ... 85 °C (without mechanical actuation) |
| Ambient temperature (operation) (Cable, flexible installation) | -25 °C ... 85 °C (Cable, flexible installation) |
| Ambient temperature (operation) (Cable, fixed installation) | -40 °C ... 85 °C (cable, fixed installation) |
| UL Type Rating | Type 4 (indoor use only) |

Standards and regulations

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

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Drawings

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

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Approvals

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| | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  cULus Recognized Approval ID: E221474-20140616 | | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 30 V | 1.5 A | 26 | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27440103 |
| ECLASS-15.0 | 27440103 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC003570 |
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UNSPSC

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|-------------|----------|
| 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 | f4ca34f0-7420-48a9-9d4f-9a888316df90 |

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