

SACC-SQ-M12MSD-4CON-20-L180 - Device connector front mounting



1456394

<https://www.phoenixcontact.com/us/products/1456394>

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Device connector front mounting, Universal, 4-position, Pin, straight, M12-SPEEDCON, D-coding, Wave soldering, 0.34 mm², 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 PCB assembly: one-piece connectors for wave soldering
- Standard pin assignments for signal and power transmission with a uniform design-in design
- SPEEDCON fast locking system reduces cabling times

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1456394 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | AB24 |
| Product key | ABQEFK |
| GTIN | 4046356617000 |
| Weight per piece (including packing) | 11.47 g |
| Weight per piece (excluding packing) | 8.089 g |
| Customs tariff number | 85366990 |
| 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. |
|--------------------|--|

Mounting

| | |
|-------------------|--|
| Mounting type | Front mounting/square flange (20 mm side length) |
| Tightening torque | 3 Nm ... 4 Nm (Installation-side) |

Product properties

| | |
|----------------------|-----------------------------------|
| Product type | Circular connectors (device side) |
| Sensor type | Universal |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | D |
| Thread type | M12 |

Insulation characteristics

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

Material specifications

| | |
|--|--------|
| Material Housing | GD-Zn |
| Material Housing surface | Ni |
| Material Contact carrier | PA 6.6 |
| Material Contact | CuZn |
| Material Contact surface | Au |
| Material Seal | FKM |
| Flammability rating according to UL 94 | V0 |

Electrical properties

| | |
|---------------------------|----------------------------|
| Rated surge voltage | 2.5 kV |
| Contact resistance | $\leq 3 \text{ m}\Omega$ |
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 250 V |
| Nominal current I_N | 4 A |
| Max. conductor resistance | 57.6 m Ω /m |

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Connection data

Conductor connection

| | |
|-------------------------|-----------------------------------|
| Connection method | Wave soldering |
| Contact connection type | Pin |
| Conductor cross-section | 0.34 mm ² |
| Tightening torque | 3 Nm ... 4 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 | SPEEDCON |
| Coding | D |

Cable/line

| | |
|---------------------------------|----------------------|
| Signal type/category | Universal |
| Wire diameter incl. insulation | 1.2 mm ±0.07 mm |
| Cable cross section | 0.34 mm ² |
| Conductor structure signal line | 7x 0.25 mm |
| Thickness, insulation | 0.21 mm |
| Nominal voltage, cable | 300 V |
| Test voltage, cable | 2000 V AC |
| Cable resistance | ≤ 57.6 mΩ/m |
| Cable insulation resistance | ≥ 20 MΩ*km |

Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C -40 °C ... 85 °C (without mechanical actuation) |
| UL Type Rating | Type 4 (indoor use only) |

Standards and regulations

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

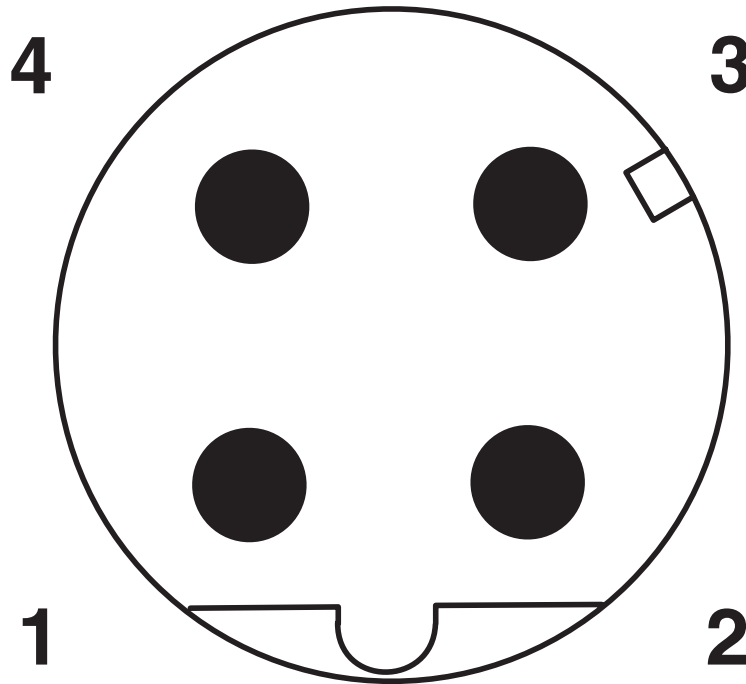
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Drawings

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1456394>

|  cUL Recognized Approval ID: E118976-20100522 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 250 V | 4 A | 22 | - |

|  UL Recognized Approval ID: E118976-20100522 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 250 V | 4 A | 22 | - |

|  cULus Recognized Approval ID: E221474-20140616 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 250 V | 4 A | - | - |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27440110 |
| ECLASS-15.0 | 27440110 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC003568 |
|-----------|----------|

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 | c249b656-6f41-4b59-a205-27c2ff836f67 |

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