

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507
<https://www.phoenixcontact.com/it/products/1528507>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Device connector front mounting, Ethernet CAT5 (100 Mbps), Ethernet, 4-position, PUR, water blue RAL 5021, shielded, Socket, straight, M12, coding: D, on free cable end, Front mounting, Cable lug connection, cable length: 2 m, Ethernet flexible CAT5, 2-pair, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239911

Your advantages

- Preassembled with cables in various standard lengths for immediate use
- Customer-specific assemblies and cable lengths can be supplied
- Sealed on the cable side for optimum tightness of seal
- Cable designs for all common networks and fieldbuses
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

| | |
|--------------------------------------|--------------------|
| Item number | 1528507 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | ABQ |
| Product key | ABQDEI |
| Catalog page | Page 182 (PC-2007) |
| GTIN | 4046356023436 |
| Weight per piece (including packing) | 108.1 g |
| Weight per piece (excluding packing) | 108.1 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507

<https://www.phoenixcontact.com/it/products/1528507>

Technical data

Notes

| | |
|---------|--|
| General | 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 | Lock nut is included in the scope of delivery |

Safety note

| | |
|-------------|--|
| Safety note | <p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> <ul style="list-style-type: none">• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.• The products are suitable for applications in plant, controller, and electrical device engineering.• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.• Assembled products may not be manipulated or improperly opened.• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).• When using the product in direct connection with third-party manufacturers, the user is responsible.• For operating voltages > 50 V AC, conductive connector housings must be grounded• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.• Observe the corresponding technical data. You will find information:<ul style="list-style-type: none">o On the producto On the packing labelo In the supplied documentationo 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 |
|-------------|--|

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507

<https://www.phoenixcontact.com/it/products/1528507>

section of the product at [phoenixcontact.com/products](https://www.phoenixcontact.com/products)

- Ensure that the protective or functional ground has been properly connected.

- 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

- The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

Mounting

Mounting type

Front mounting

Product properties

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

Insulation characteristics

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

Material specifications

| | |
|--|----------------------|
| Flammability rating according to UL 94 | V0 |
| Seal material | NBR |
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Brass, nickel-plated |
| Outer sheath, material | PUR |

Electrical properties

| | |
|---|--|
| Contact resistance | $\leq 3 \text{ m}\Omega$ |
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage U_N | 48 V AC |
| | 60 V DC |
| Nominal current I_N | 4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed) |
| Test voltage | 2500 V |
| Transmission medium | Copper |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507

<https://www.phoenixcontact.com/it/products/1528507>

Connection data

Conductor connection

| | |
|-------------------------|----------------------|
| Connection method | Cable lug connection |
| Contact connection type | Socket |

Connector

Connection 1

| | |
|-------------------|----------|
| Head design | Socket |
| Head cable outlet | straight |
| Head thread type | M12 |
| Coding | D |


Connection 2

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

Cable/line

| | |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|

Ethernet flexible CAT5, 2-pair [93E]

| | |
|---------------------------------|--|
| Dimensional drawing |  |
| Cable weight | 42 kg/km |
| UL AWM Style | 20963 (80°C/30 V) |
| Wiring standards/regulations | Electrical requirements EN 50288-2-2 |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | Ethernet flexible CAT5, 2-pair [93E] |
| Conductor structure | 2x2xAWG26/7, SF/UTP |
| Signal runtime | 5.3 ns/m |
| Conductor structure signal line | 7x 0.16 mm |
| AWG signal line | 26 |
| Conductor cross section | 2x 2x 0.14 mm² |
| Wire diameter incl. insulation | 0.98 mm |
| External cable diameter | 6.40 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | water blue RAL 5021 |

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507

<https://www.phoenixcontact.com/it/products/1528507>

| | |
|--|--|
| Conductor material | Bare Cu litz wires |
| Material wire insulation | Foamed PE |
| Single wire, color | white/orange-orange, white/green-green |
| Thickness, outer sheath | 1.20 mm |
| Twisted pairs | 2 cores to the pair |
| Overall twist | Two pairs with two fillers to the core |
| Optical shield covering | 70 % |
| Insulation resistance | $\geq 500 \text{ M}\Omega \cdot \text{km}$ |
| Coupling resistance | $\leq 100.00 \text{ m}\Omega/\text{m}$ (at 10 MHz) |
| Loop resistance | $\leq 290.00 \text{ }\Omega/\text{km}$ |
| Wave impedance | $100 \text{ }\Omega \pm 5 \text{ }\Omega$ (at 100 MHz) |
| Cable capacity | approx. 45 nF/km (at 1 kHz) |
| Nominal voltage, cable | $\leq 100 \text{ V}$ (Peak value, not for high-power applications) |
| Test voltage Core/Core | 700 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 700.00 V (50 Hz, 1 min.) |
| Current carrying capacity of cable | 2.00 A (according to DIN VDE 0891-1) |
| Minimum bending radius, fixed installation | 4 x D |
| Minimum bending radius, flexible installation | 8 x D |
| Smallest bending radius, fixed installation | 26 mm |
| Smallest bending radius, movable installation | 52 mm |
| Tensile strength | $\leq 80 \text{ N}$ |
| Near end crosstalk attenuation (NEXT) | 65.3 dB (with 1 MHz) |
| | 56.3 dB (at 4 MHz) |
| | 50.3 dB (at 10 MHz) |
| | 47.2 dB (at 16 MHz) |
| | 45.8 dB (at 20 MHz) |
| | 42.9 dB (at 31.25 MHz) |
| | 38.4 dB (at 62.5 MHz) |
| | 35.3 dB (at 100 MHz) |
| Power-summed near end crosstalk attenuation (PSNEXT) | 62.3 dB (with 1 MHz) |
| | 53.3 dB (at 4 MHz) |
| | 47.3 dB (at 10 MHz) |
| | 44.2 dB (at 16 MHz) |
| | 42.8 dB (at 20 MHz) |
| | 39.9 dB (at 31.25 MHz) |
| | 35.4 dB (at 62.5 MHz) |
| | 32.3 dB (at 100 MHz) |
| Return attenuation (RL) | 23 dB (at 4 MHz) |
| | 24.1 dB (at 8 MHz) |
| | 25 dB (at 10 MHz) |
| | 25 dB (at 16 MHz) |
| | 25 dB (at 20 MHz) |

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507

<https://www.phoenixcontact.com/it/products/1528507>

| | |
|------------------------------------|---|
| Shield attenuation | 23.6 dB (at 31.25 MHz) |
| | 21.5 dB (at 62.5 MHz) |
| | 20.1 dB (at 100 MHz) |
| | 3.2 dB (with 1 MHz) |
| | 6 dB (at 4 MHz) |
| | 9.5 dB (at 10 MHz) |
| | 12.1 dB (at 16 MHz) |
| | 13.6 dB (at 20 MHz) |
| | 17.1 dB (at 31.25 MHz) |
| | 24.8 dB (at 62.5 MHz) |
| | 32 dB (at 100 MHz) |
| Halogen-free | according to IEC 60754-1 |
| Flame resistance | according to IEC 60332-1-2 |
| | in acc. to UL VW1 |
| | in accordance with UN ECE-R 118.03 |
| Resistance to oil | in accordance with EN 60811-2-1 |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -20 °C ... 80 °C (Cable, flexible installation) |
| Ambient temperature (installation) | -20 °C ... 80 °C |

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) |

Standards and regulations

M12

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

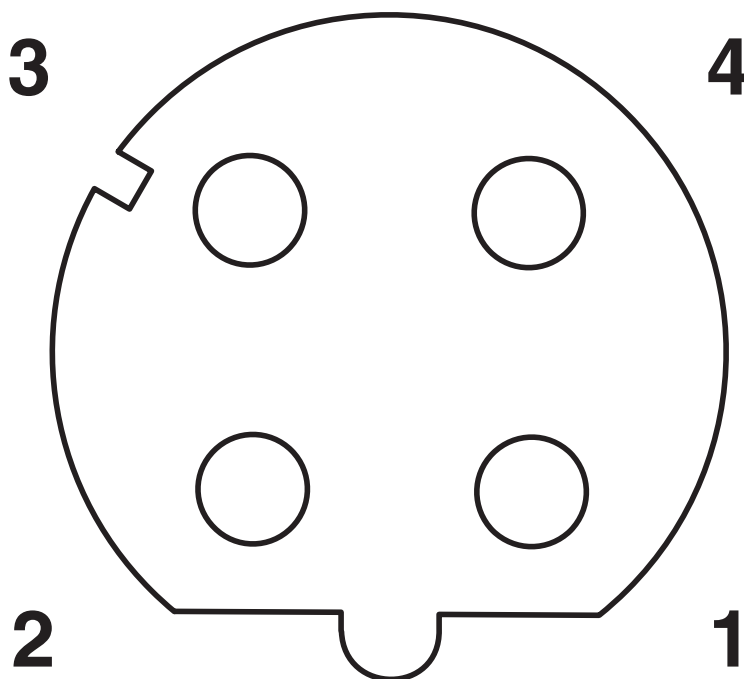
SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting

1528507

<https://www.phoenixcontact.com/it/products/1528507>

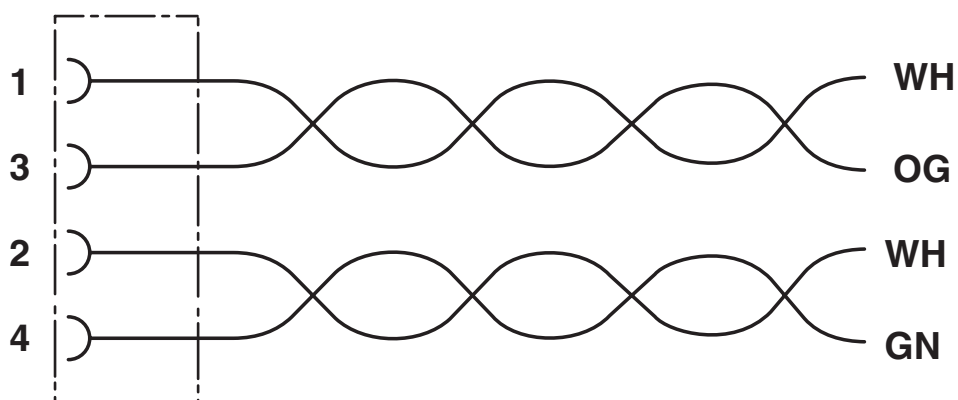
Drawings

Schematic diagram



Pin assignment M12 socket, 4-pos., D-coded, female side

Circuit diagram



SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507
<https://www.phoenixcontact.com/it/products/1528507>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/it/products/1528507>

| | | | | |
|--|--|-----------------------|-------------------|-----------------------------|
| | cUL Recognized Approval ID: E221474-20220907 | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 30 V | 1.5 A | - | - |

| | | | | |
|--|---|-----------------------|-------------------|-----------------------------|
| | UL Recognized Approval ID: E221474-20220907 | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 30 V | 1.5 A | - | - |

| | | | | |
|-------------------------|--|--|--|--|
| cULus Recognized | | | | |
|-------------------------|--|--|--|--|

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507
<https://www.phoenixcontact.com/it/products/1528507>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27440103 |
| ECLASS-12.0 | 27440103 |
| ECLASS-13.0 | 27440103 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC003570 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

SACCEC-M12FSD-4CON-M16/2,0-931 - Device connector front mounting



1528507
<https://www.phoenixcontact.com/lt/products/1528507>

Environmental product compliance

| | |
|------------|--|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact UAB
Svitrigailos str. 11B
03228 Vilnius
+370 5 2106321
balticinfo@phoenixcontact.com