

SACCBP-M12FS-6CON-M16/1,0-970 - Device connector rear mounting



1429101

<https://www.phoenixcontact.com/us/products/1429101>

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Device connector rear mounting, VARAN, 6-position, Socket, straight, M12-SPEEDCON, A-coding, on free cable end, Bus line, cable length: 1 m, 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

- 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 | 1429101 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | ABQDGG |
| GTIN | 4046356323062 |
| Weight per piece (including packing) | 114.22 g |
| Weight per piece (excluding packing) | 101.099 g |
| 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. |
| Order information: | Lock nut is included in the scope of delivery |

Mounting

| | |
|-------------------|--|
| Mounting type | Rear mounting (M16 x 1.5, with flat nut) |
| Tightening torque | 2 Nm ... 3 Nm (Installation-side) |

Product properties

| | |
|----------------------|-----------------------------------|
| Product type | Circular connectors (device side) |
| Application | Data |
| Sensor type | VARAN |
| Number of positions | 6 |
| No. of cable outlets | 1 |
| Coding | A |
| Thread type | M12 |

Insulation characteristics

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

Material specifications

| | |
|--|----------------------|
| Material Housing | GD-Zn |
| Material Housing surface | Ni |
| Material Insulating body | PA 6.6 |
| Material Contact | CuZn |
| Material Contact surface | Au |
| Material Seal | FKM |
| Flammability rating according to UL 94 | V0 |
| Material for screw connection | Brass, nickel-plated |

Electrical properties

| | |
|-----------------------|----------|
| Rated surge voltage | 0.8 kV |
| Contact resistance | ≤ 3 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U_N | 30 V |
| Nominal current I_N | 2 A |

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Connection data

Conductor connection

| | |
|-------------------------|-----------------------------------|
| Connection method | Bus line |
| Contact connection type | Socket |
| Tightening torque | 2 Nm ... 3 Nm (Installation-side) |

Mechanical properties

Mechanical data

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

Connector

Connection 1

| | |
|-------------------|----------|
| Head design | Socket |
| Head cable outlet | straight |
| Head thread type | M12 |
| Head locking type | SPEEDCON |
| Coding | A |

Connection 2

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

Cable/line

| | |
|--------------|-----|
| Cable length | 1 m |
|--------------|-----|

VARAN [970]

| | |
|-------------------------------------|--|
| Dimensional drawing |  |
| Cable weight | 81 kg/km |
| Number of positions | 6 |
| Shielded | yes |
| Cable type | VARAN [970] |
| Conductor structure | 1x2xAWG22/19 + 1x4xAWG24/19 |
| Conductor structure signal line | 19x 0.13 mm |
| AWG signal line | 24 |
| Conductor structure, voltage supply | 19x 0.16 mm |

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| | |
|---|---|
| AWG power supply | 22 |
| Conductor cross-section | 4x 0.25 mm ² (Signal line) |
| | 2x 0.38 mm ² (Power supply) |
| Wire diameter incl. insulation | 1.35 mm (Signal line) |
| | 1.5 mm (Power supply) |
| External cable diameter | 7.80 mm ±0.2 mm |
| Outer sheath, material | SANTOPRENE halogen-free |
| External sheath, color | black RAL 9005 |
| Conductor material | Bare Cu litz wires |
| Material, filler | Yarn |
| Material wire insulation | PP |
| Single wire, color | brown, blue, white/orange, white/green, green, orange |
| Type of pair shielding | Tinned copper braided shield, 95 % covering |
| Overall twist | 1 star quad and 2 wires with 2 fillers |
| Max. conductor resistance | 77 Ω/m (Data cable) |
| Insulation resistance | 5 GΩ*km (Data cable) |
| Wave impedance | 100 Ω ±15 % |
| Working capacitance | 50 nF (Data cable) |
| Nominal voltage, cable | 125 V (Data cable) |
| | 48 V (Power supply) |
| Test voltage | 2000 V (Power supply) |
| | max. 700 V AC (Data cable) |
| Smallest bending radius, fixed installation | ≥ 93 mm |
| Smallest bending radius, movable installation | ≥ 93 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 3000000, Bending radius: 93 mm, Traversing path: 2 m, Traversing rate: 1 m/s, Acceleration: 2 m/s ² |
| Halogen-free | in accordance with DIN EN 50267-2-1 |
| Ambient temperature (operation) | -20 °C ... 80 °C (Cable) |
| Ambient temperature (installation) | 0 °C ... 50 °C |

Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP67 (When plugged in) |
| | IP65 (When plugged in) |
| | IP65/IP67 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C |
| | -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) |

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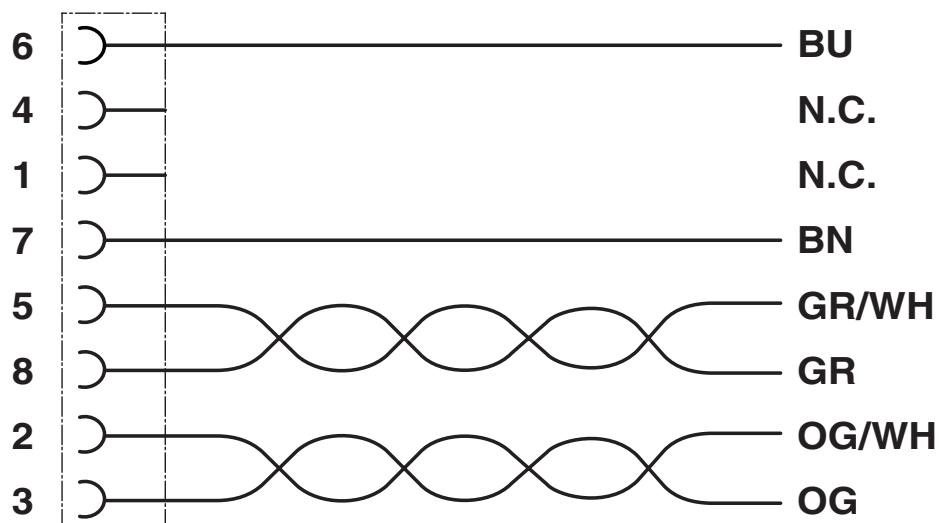
Drawings

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

Circuit diagram



Contact assignment of the M12 socket

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1429101>

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

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Classifications

ECLASS

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

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | 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 | a64933c4-8e96-4557-8128-fe9f73b5d8ec |

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