

1437591

https://www.phoenixcontact.com/us/products/1437591

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Device connector rear mounting, CANopen[®], DeviceNet[™], 5-position, PUR halogen-free, red lilac RAL 4001, shielded, Pin, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, Cable connection, cable length: 5 m, CANopen[®]/DeviceNet[™], PUR, violet, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239665

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 | 1437591 |
|--------------------------------------|---------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | ABQDGB |
| Catalog page | Page 427 (C-2-2019) |
| GTIN | 4046356457729 |
| Weight per piece (including packing) | 327 g |
| Weight per piece (excluding packing) | 312.3 g |
| Country of origin | DE |



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Technical data

Notes

| lotes | |
|-------------|--|
| 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 | WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property. |
| | 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: On the product On the packing label On the supplied documentation Online at phoenixcontact.com/products under the product |
| | Only use tools recommended by Phoenix Contact |
| | . He a protective can to protect connectors that are not in use |

• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory



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| | section of the product at 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). |
| ounting | |
| Mounting type | Rear mounting |
| roduct properties | |
| Product type | Circular connectors (device side) |
| Sensor type | CANopen [®] |
| Number of positions | 5 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |
| Thread type | M12 |
| Insulation characteristics | |
| Overvoltage category | II |
| Degree of pollution | 3 |
| aterial specifications | |
| Flammability rating according to UL 94 | V0 |
| Seal material | FKM |
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast, nickel-plated |
| Outer sheath, material | PUR |
| ectrical properties | |
| Rated surge voltage | 1.5 kV |
| Insulation resistance | 100 ΜΩ |
| Nominal voltage U _N | 48 V AC |
| • • | 60 V DC |
| | |
| Nominal current I _N | 4 A |

Connection data



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Conductor connection

| Connection method | Cable connection |
|-------------------------|-------------------------------|
| Contact connection type | Pin |
| Tightening torque | 2 Nm 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 | SPEEDCON |
| Coding | A |

Connection 2

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

Cable/line

| Cable length | 5 m | |
|--------------|-----|--|
| Cable length | 5 m | |

CANopen®/DeviceNet™, PUR, violet [920]

Dimensional drawing



| Cable weight | 90 kg/km |
|---------------------------------|---|
| UL AWM Style | 21198 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | CANopen [®] /DeviceNet™, PUR, violet [920] |
| Conductor structure | 2xAWG24/19+2xAWG22/19 |
| Conductor structure signal line | 19x 0.13 mm |
| AWG signal line | 24 |
| Conductor cross section | 2x 0.25 mm² (Data cable) |
| | 2x 0.34 mm² (Power supply) |



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| | 1x 0.34 mm² (Drain wire) |
|---|--|
| Wire diameter incl. insulation | 1.95 mm ±0.05 mm (Data cable) |
| | 1.4 mm ±0.05 mm (Power supply) |
| External cable diameter | 6.70 mm ±0.3 mm |
| Outer sheath, material | PUR |
| External sheath, color | red lilac RAL 4001 |
| Conductor material | Tin-plated Cu litz wires |
| Material wire insulation | Foamed PE (Data cable) |
| | PE (Power supply) |
| Single wire, color | red-black, blue-white |
| Twisted pairs | 2 cores to the pair |
| Type of pair shielding | Plastic-coated aluminum foil, aluminum side outside |
| Overall twist | 2 pairs around a drain wire in the center to the core |
| Optical shield covering | 80 % |
| Insulation resistance | ≥ 5 GΩ*km (Data cable) |
| | ≥ 5 GΩ*km (Power supply) |
| Loop resistance | ≤ 181.80 Ω/km (Data cable) |
| | ≤ 114.80 Ω/km (Power supply) |
| Wave impedance | 120 Ω ±10 % (with 1 MHz) |
| Cable capacity | nom. 40 nF/km (Data cable) |
| Nominal voltage, cable | ≤ 300 V (Peak value, not for high-power applications) |
| Test voltage Core/Core | 2000 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 2000.00 V (50 Hz, 1 min.) |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 34 mm |
| Smallest bending radius, movable installation | 67 mm |
| Max. bending cycles | 5000000 |
| Shield attenuation | ≤ 22.9 dB/km (with 1 MHz) |
| | ≤ 16.4 dB/km (At 500 kHz) |
| | ≤ 9.5 dB/km (At 125 kHz) |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | according to IEC 60754-1 |
| Flame resistance | UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) |
| | UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2) |
| | IEC 60332-1-2 |
| | in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01) |
| Other resistance | Low adhesion |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -30 °C 70 °C (Cable, flexible installation) |
| | -20 °C 60 °C (for installation) |
| | -20 °C 60 °C (cable, drag chain applications) |



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Environmental and real-life conditions

Ambient conditions

| Degree of protection | IP67 (When plugged in) |
|---------------------------------|---|
| | IP65 (When plugged in) |
| | IP65/IP67 |
| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket) |
| | -40 °C 85 °C (without mechanical actuation) |

Standards and regulations

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



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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

| 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" |

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