

1419302

https://www.phoenixcontact.com/us/products/1419302

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 rear mounting, Universal, 4-position, PUR, black-gray RAL 7021, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 1 m, PUR halogen-free black, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239245

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 | 1419302 |
|--------------------------------------|--------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB25 |
| Product key | ABQDGG |
| Catalog page | Page 51 (C-2-2019) |
| GTIN | 4046356533256 |
| Weight per piece (including packing) | 70.4 g |
| Weight per piece (excluding packing) | 70.4 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |



1419302

https://www.phoenixcontact.com/us/products/1419302

Technical data

Notes

| otes | |
|-------------|--|
| 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: o On the product o On the packing label o In the supplied documentation o 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 published prime in the accessory. |

The suitable accessories are available online in the accessory



1419302

https://www.phoenixcontact.com/us/products/1419302

| | 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 are applicable when combining several circuits in a cable and/ connector |
| | The connector warms up in normal operation. Depending on ambient conditions, the surface of the connector can continue warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12). |
| punting | |
| Mounting type | Rear mounting M16 x 1.5 With flat nut |
| Assembly instructions | With flat nut |
| | |
| oduct properties | |
| Product type | Circular connectors (device side) |
| Sensor type | Universal |
| Number of positions | 4 |
| 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 | NBR |
| Contact material | CuZn |
| Contact surface material | Au |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast |
| Outer sheath, material | PUR |
| ectrical properties | |
| · · | 2.5.137 |
| Rated surge voltage | 2.5 kV |
| Contact resistance | ≤ 3 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 250 V |
| Nominal current I _N | 4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed) |
| Transmission medium | Copper |



1419302

https://www.phoenixcontact.com/us/products/1419302

Connection data

Conductor connection

| Connection method | Cable connection |
|-------------------------|-------------------------------|
| Contact connection type | Socket |
| Tightening torque | 3 Nm 4 Nm (Installation-side) |

Mechanical properties

Mechanical data

| Insertion/withdrawal cycles | > 100 |
|-----------------------------|---------|
| Max. bending cycles | 2000000 |

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 |
|--------------|-----|
|--------------|-----|

PUR halogen-free black [PUR]

Dimensional drawing



| Cable weight | 36 kg/km |
|---------------------------------|------------------------------|
| UL AWM Style | 20549 / 10493 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | PUR halogen-free black [PUR] |
| Conductor structure signal line | 42x 0.10 mm |
| AWG signal line | 22 |



1419302

https://www.phoenixcontact.com/us/products/1419302

| Conductor cross section | 4x 0.34 mm² (Signal line) |
|---|---|
| Wire diameter incl. insulation | 1.27 mm ±0.02 mm (Signal line) |
| External cable diameter | 4.95 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | black-gray RAL 7021 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | brown, white, blue, black |
| Thickness, insulation | ≥ 0.21 mm |
| Thickness, outer sheath | approx. 0.50 mm |
| Overall twist | 4 wires, twisted |
| Optical shield covering | 80 % |
| Max. conductor resistance | max. 58 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 100 GΩ*km (at 20 °C) |
| Wave impedance | ≥ 62 Ω (f = 10 MHz) |
| Cable capacity | ≤ 80 pF/m (Conductor-Conductor) |
| | ≤ 135 pF/m (Wire/shield) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage | ≥ 3000 V |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Smallest bending radius, fixed installation | 25 mm |
| Smallest bending radius, movable installation | 50 mm |
| Max. bending cycles | 10000000 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | in accordance with DIN EN 50267-2-1 |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| | DIN EN 60332-2-2 (20 s) |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| | hydrolysis and microbe resistant |
| | Resistant to salt water |
| | partly UV-resistant (in accordance with DIN EN ISO 4892-2-A) |
| | abrasion-resistant |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| | Low adhesion surface |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -25 °C 80 °C (Cable, flexible installation) |

Environmental and real-life conditions



1419302

https://www.phoenixcontact.com/us/products/1419302

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

M12

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



1419302

https://www.phoenixcontact.com/us/products/1419302

Classifications

ECLASS

| | ECLASS-11.0 | 27440103 | |
|--------|-------------|----------|--|
| | ECLASS-12.0 | 27440103 | |
| | ECLASS-13.0 | 27440103 | |
| ETIM | | | |
| | ETIM 9.0 | EC003570 | |
| UNSPSC | | | |
| | UNSPSC 21.0 | 39121400 | |



1419302

https://www.phoenixcontact.com/us/products/1419302

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 USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com