

1419357

https://www.phoenixcontact.com/us/products/1419357

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Device connector rear mounting, Universal, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 1 m, 0.25 mm², PUR halogen-free black, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239250

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
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

| Item number | 1419357 | |
|--------------------------------------|--------------------|--|
| Packing unit | 1 pc | |
| Minimum order quantity | 1 pc | |
| Sales key | AB25 | |
| Product key | ABQDGG | |
| Catalog page | Page 51 (C-2-2019) | |
| GTIN | 4046356533331 | |
| Weight per piece (including packing) | 79.3 g | |
| Weight per piece (excluding packing) | 73.132 g | |
| Customs tariff number | 85444290 | |
| 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 | |
|---------------|---------------------------------------|--|
| Assembly note | With flat nut | |

Product properties

| Product type | Circular connectors (device side) |
|----------------------|-----------------------------------|
| Sensor type | Universal |
| Number of positions | 8 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |
| Thread type | M12 |
| | |

Insulation characteristics

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

Material specifications

| Flammability rating according to UL 94 | V0 | |
|--|------------------------------|--|
| Seal material | FKM | |
| Contact material | CuZn | |
| Contact surface material | Au | |
| Contact carrier material | PA 6.6 | |
| Material for screw connection | Zinc die-cast, nickel-plated | |
| Outer sheath, material | PUR | |
| Conductor material | Bare Cu litz wires | |

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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| Max. conductor resistance | 78 Ω/km | | |
|---|-------------------------------|--|--|
| Connection data | | | |
| Conductor connection | | | |
| Connection method | Cable connection | | |
| Contact connection type | Socket | | |
| Conductor cross section | 8x 0.25 mm² (Signal line) | | |
| 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 | | | |
| | free cable end | | |
| Head design | ifee cable end | | |
| Cable/line | | | |
| Cable length | 1 m | | |
| PUR halogen-free black [PUR] | | | |
| Dimensional drawing | | | |
| | | | |
| Cable weight | 53 kg/km | | |
| UL AWM Style | 20549 / 10493 (80°C/300 V) | | |
| Number of positions | 8 | | |
| Shielded | yes | | |
| Cable type PUR halogen-free black [PUR] | | | |



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| Conductor structure signal line | 32x 0.10 mm | | |
|---|--|--|--|
| AWG signal line | 24 | | |
| Conductor cross section | 8x 0.25 mm² (Signal line) | | |
| Wire diameter incl. insulation | 1.17 mm ±0.02 mm | | |
| External cable diameter | 5.90 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, green, yellow, gray, pink, blue, red | | |
| Thickness, insulation | approx. 0.20 mm | | |
| Thickness, outer sheath | approx. 0.50 mm | | |
| Overall twist | 8 wires around filler to the core | | |
| Optical shield covering | 85 % | | |
| Max. conductor resistance | ≤ 78 Ω/km (at 20 °C) | | |
| Insulation resistance | ≥ 1 GΩ*km (at 20 °C) | | |
| Nominal voltage, cable | ≤ 300 V AC | | |
| Test voltage | ≥ 3000 V AC (Spark test) | | |
| Test voltage Core/Shield | ≥ 2000.00 V AC (for 60 s) | | |
| Minimum bending radius, fixed installation | 5 x D | | |
| Minimum bending radius, flexible installation | 10 x D | | |
| Smallest bending radius, fixed installation | 30 mm | | |
| Smallest bending radius, movable installation | 59 mm | | |
| Dynamic load capacity (bending) | Max. bending cycles: 5000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s² | | |
| Dynamic load capacity (torsion) | Torsion: ±180 °/m, Torsion cycles: ≥1000000, Torsional frequency: 35 cycles/min. | | |
| Halogen-free | in accordance with DIN VDE 0472 part 815 | | |
| | according to IEC 60754-1 | | |
| Flame resistance | in acc. with UL FT-2 | | |
| | according to UL 758/1581 (horizontal) | | |
| | in accordance with UL 758/1581 FT2 | | |
| | According to DIN EN 60332-2-2 (20 s) | | |
| Resistance to oil | in accordance with IEC 60811-404 | | |
| Other resistance | hydrolysis and microbe resistant | | |
| | Resistant to salt water | | |
| | low-abrasion | | |
| | partly UV-resistant (in accordance with DIN EN ISO 4892-2-A) | | |
| Special properties | Flexible cable conduit capable | | |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) | | |
| | -25 °C 80 °C (Cable, flexible installation) | | |



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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) | |
| | -25 °C 85 °C (Cable, flexible installation) | |
| | -40 °C 85 °C (cable, fixed installation) | |
| UL Type Rating | Type 4 (indoor use only) | |

Standards and regulations

| Standard designation | M12 circular connector |
|----------------------|------------------------------|
| • | according to IEC 61076-2-101 |

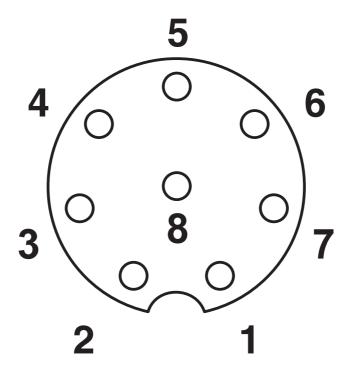


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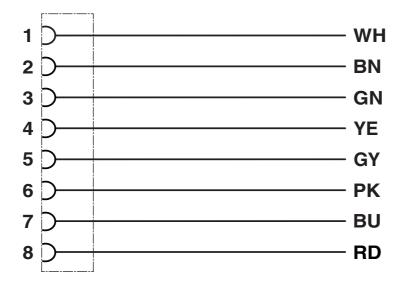
Drawings

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/1419357

| .51 | 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 | - | - |

| 71 | UL Recognized Approval ID: E221474-20220907 | | | | | | |
|-----------|---|-----------------------|--------------------------------|-------------------|-------------------------------|--|--|
| | | Nominal voltage U_N | Nominal current I _N | Cross section AWG | Cross section mm ² | | |
| | | 30 V | 2 A | - | - | | |



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Classifications

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| | ECLASS-13.0 | 27440103 |
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| Εī | ГІМ | |
| | ETIM 9.0 | 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 | 03cec58e-1251-4293-b629-ca0bcaa8f6d9 | | |

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