

1411590

https://www.phoenixcontact.com/us/products/1411590

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Device connector rear mounting, Universal, 17-position, Socket, straight, M12-Standard, coding: A, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 0.5 m, 0.14 mm², TPE litz wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1238889

Your advantages

- Easy-to-install, optimized XL housing contour with wrench size 19
- · Mechanical tightening limitation for long-term-stable gasket
- · Preassembled with litz wires for immediate use
- · Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- · All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

| Item number | 1411590 |
|--------------------------------------|--------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB24 |
| Product key | ABQCHB |
| Catalog page | Page 50 (C-2-2019) |
| GTIN | 4046356936033 |
| Weight per piece (including packing) | 38.5 g |
| Weight per piece (excluding packing) | 22.22 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |



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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 |
| General | Contact connection method: Crimp connection |

Mounting

| Mounting type | Rear mounting M16 x 1.5 With flat nut, tightening limitation |
|-----------------------|--|
| Assembly instructions | With flat nut, tightening limitation |

Product properties

| Product type | Circular connectors (device side) |
|----------------------|-----------------------------------|
| Sensor type | Universal |
| Number of positions | 17 |
| No. of cable outlets | 1 |
| Shielded | no |
| 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 |
| Conductor material | Tin-plated 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 (AC) |
| | 30 V (DC) |



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| Nominal current I _N | 1.5 A |
|--------------------------------|-----------|
| Max. conductor resistance | 57.6 mΩ/m |

Connection data

Conductor connection

| Connection method | Individual wires |
|-------------------------|-----------------------------------|
| Contact connection type | Socket |
| Conductor cross section | 0.14 mm² |
| Tightening torque | 0.8 Nm 1.3 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 | Standard |
| Coding | A |

Connection 2

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

Cable/line

| Cable length | 0.5 m |
|---------------------------------|--|
| Cable type | TPE litz wire |
| Signal type/category | Universal |
| Wire diameter incl. insulation | 1.1 mm ±0.05 mm |
| Single wire, color | brown, blue, white, green, pink, yellow, black, gray, red, violet, gray/pink, red/blue, white/green, brown/green, white/yellow, yellow/brown, white/gray |
| Cable cross section | 0.14 mm² |
| Conductor material | Tin-plated Cu litz wires |
| Conductor structure signal line | 7x 0.16 mm |
| AWG signal line | 26 |
| Material wire insulation | TPE |
| Thickness, insulation | 0.21 mm (Core insulation) |
| Nominal voltage, cable | 300 V |
| Test voltage, cable | 2000 V AC |
| Cable resistance | ≤ 57.6 mΩ/m |
| Cable insulation resistance | ≥ 20 MΩ*km |



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| Ambient temperature (operation) | -40 °C 85 °C (cable, fixed installation) |
|---------------------------------|---|
| | -25 °C 85 °C (Cable, flexible installation) |

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) |
| | -25 °C 85 °C (Cable, flexible installation) |
| | -40 °C 85 °C (cable, fixed installation) |

Standards and regulations

M12

| 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



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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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