1424659

https://www.phoenixcontact.com/in/products/1424659

PHŒNI

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.

Connector, Universal, 5-position, shielded, Plug angled M12, A, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm



Your advantages

- Time-saving Push-Lock connection: Tool-free connection and disconnection of conductors by opening the contact levers
- · Intuitive connection: Easy assignment of individual litz wires with color-coded and numerical identification of the contact levers
- · Integrated Push-in Technology: Wire rigid and pretreated conductors easily by means of simple, direct insertion
- · Shock- and vibration-resistant connection: Proven spring-cage technology guarantees secure and reliable contacting
- Safely shielded: Reliable 360° shield connection even under extreme mechanical strain
- · Flexible cable outlets with angled connectors

Commercial Data

| Item number | 1424659 |
|--------------------------------------|--------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | BF2 |
| Product Key | BF2CFA |
| Catalog Page | Page 19 (C-2-2019) |
| GTIN | 4055626375861 |
| Weight per Piece (including packing) | 39.93 g |
| Weight per Piece (excluding packing) | 37.678 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

1424659

https://www.phoenixcontact.com/in/products/1424659



Technical Data

Notes

| Assembly instruction: | NOTE: Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties. |
|-----------------------|--|
| ounting | |
| Assembly instructions | The connector pin assignment can be rotated 45° to the cable outlet |
| | The wires can be connected both with ferrules and without |

ferrules

Product properties

| Product type | Circular connector (cable-side) |
|----------------------|---------------------------------|
| Number of positions | 5 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |
| Cable outlet | angled |

Insulation characteristics

| Overvoltage category | 11 |
|----------------------|----|
| Degree of pollution | 3 |

Dimensions

| Dimensional drawing | 819 13 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 |
|--|--|
| Length | 50 mm |
| External dimensions | |
| Outside diameter | 4 mm 8 mm |
| Housing | |
| Diameter housing | 19 mm |
| Material specifications | |
| Material | TPE-U |
| | PA 6 |
| Flammability rating according to UL 94 | V0 |



https://www.phoenixcontact.com/in/products/1424659



| Seal material | NBR |
|-------------------------------|---|
| Material of grip body | Zinc die-cast, nickel-plated |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 6.6 |
| Material for screw connection | Zinc die-cast, nickel-plated |
| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
| | PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

Connection data

| Conductor connection | |
|---|---|
| Connection method | Push-lock spring connection |
| Connection cross section | 0.14 mm ² 0.75 mm ² (without ferrule) |
| | 0.08 mm ² 0.5 mm ² (with ferrule) |
| | 0.14 mm ² 0.75 mm ² (solid) |
| Connection cross section AWG | 26 18 (without ferrule) |
| | 28 20 (with ferrule) |
| Stripping length of the individual wire | 7 mm |
| Tightening torque | 0.4 Nm (M12 knurl) |
| | 0.8 Nm (Connector with coupling sleeve) |
| | 3 Nm (Pressure nut with coupling sleeve) |

Pin assignment

| Contact Color (signal designation) Contact (optional) | 1 = BN |
|---|--------|
| | 2 = WH |
| | 3 = BU |
| | 4 = BK |
| | 5 = GY |

Electrical properties

| Rated surge voltage | 1.5 kV |
|--------------------------------|--|
| Contact resistance | ≤ 8 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 48 V AC |
| | 60 V DC |
| Nominal current I _N | 4 A (2 A when using 0.14 mm ² conductors) |

Mechanical properties

| Mechanical data | |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 100 |

Connector



https://www.phoenixcontact.com/in/products/1424659



| Connection 1 | |
|-------------------|--------|
| Head design | Plug |
| Head cable outlet | angled |
| Head thread type | M12 |
| Coding | Α |

Cable/line

| Signal type/category | Universal |
|---|-----------|
| Stripping length of the individual wire | 7 mm |

Environmental and real-life conditions

| Ambient conditions | |
|---------------------------------|------------------------------|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |

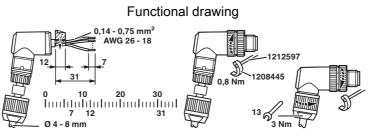
Standards and regulations

| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
|--------------------------|---|
| | PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
| M12 | |
| Standards/specifications | IEC 61076-2-101 |
| Standards/specifications | EN 50155:2001 |

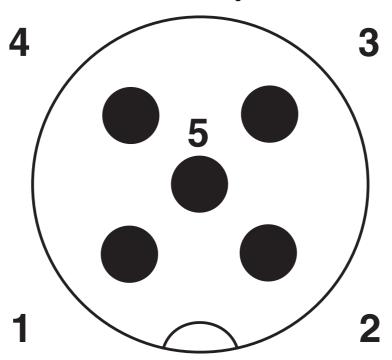
1424659

https://www.phoenixcontact.com/in/products/1424659

Drawings



Slide the pressure nut and sleeve housing along the cable, strip the cable, shorten the shield, strip the single wires, connect the wires, in the case of a straight sleeve housing gently twist the wires together, stick the shielding foil around the shortened shield, in the case of a cable outside diameter < 6 mm stick an additional shielding foil around the wire pack, screw the sleeve housing to the plug insert, screw the pressure nut tight.



Pin assignment M12 male connector, 5-pos., A-coded, male side

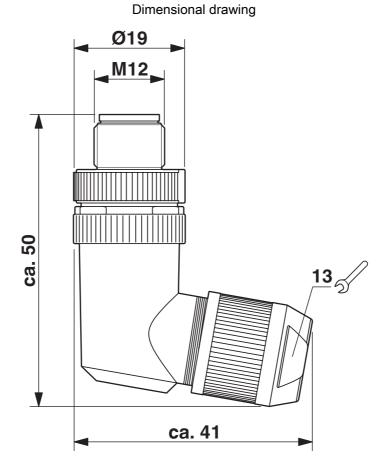
Schematic diagram

PHŒN



1424659

https://www.phoenixcontact.com/in/products/1424659



Plug M12 SPEEDCON, angled, shielded



1424659

https://www.phoenixcontact.com/in/products/1424659

Approvals

| ERC | EAC Approval ID: RU C-DE.AI3 | 80.B.01102 | | | |
|-----|---|--------------------------------|--------------------------------|-------------------|-------------------------------|
| | | | | | |
| EAC | EAC Approval ID: RU C-DE.BL | 08.B.00511 | | | |
| | | | | | |
| | UL Listed Approval ID: E221474 | | | | |
| | | Nominal Voltage U _N | Nominal Current I _N | Cross Section AWG | Cross Section mm ² |
| | | 60 V | 4 A | - | 26 - 18 |
| | | | | | |
| • | CUL Listed Approval ID: E221474 | | | | |
| | | Nominal Voltage U _N | Nominal Current I _N | Cross Section AWG | Cross Section mm ² |
| | | 60 V | 4 A | 26 - 18 | - |



1424659

https://www.phoenixcontact.com/in/products/1424659



Classifications

ECLASS

| ECLASS-11.0 | 27440102 |
|-------------|----------|
| ECLASS-12.0 | 27440116 |
| ECLASS-13.0 | 27440116 |

ETIM

| | ETIM 8.0 | EC002635 | |
|----|-------------|----------|--|
| UN | UNSPSC | | |
| | UNSPSC 21.0 | 39121400 | |



1424659 https://www.phoenixcontact.com/in/products/1424659



Environmental Product Compliance

| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|------------|---|
| | No hazardous substances above threshold values |

1424659

https://www.phoenixcontact.com/in/products/1424659



Accessories

TSD 04 SAC - Torque screwdriver

1208429 https://www.phoenixcontact.com/in/products/1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

TSD 08 SAC - Torque screwdriver

1212597 https://www.phoenixcontact.com/in/products/1212597



Torque screw driver with preset torque of 0.8 Nm, with 4 mm hexagon for accommodating SAC bits, two-component handle with non-slip grip

1424659

https://www.phoenixcontact.com/in/products/1424659



SACC BIT M12-D20 - Tool

1208445

https://www.phoenixcontact.com/in/products/1208445

Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive



TSD-M 1,2NM - Torque screwdriver

1212224 https://www.phoenixcontact.com/in/products/1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0. 3 - 1.2 $\rm Nm$

1424659

https://www.phoenixcontact.com/in/products/1424659



TSD-M 3NM - Torque screwdriver

1212225

https://www.phoenixcontact.com/in/products/1212225



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 1. $\rm 2-3\ Nm$

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600 https://www.phoenixcontact.com/in/products/1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

1424659

https://www.phoenixcontact.com/in/products/1424659



PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

https://www.phoenixcontact.com/in/products/1430873

 $\mathsf{M12}$ sealing cap made of plastic with fixing band, for sensor cables, for free $\mathsf{M12}$ plugs



SAC-5P-100,0-PUR/SH-0,34 - Cable reel

1501728 https://www.phoenixcontact.com/in/products/1501728



By the meter, Cable reel, shielded, PUR halogen-free, black-gray RAL 7021, 5wire, color single wire: brown, white, blue, black, gray, cable length: 100 m

1424659

https://www.phoenixcontact.com/in/products/1424659



ALU-SB - Shielding foil

1404531

https://www.phoenixcontact.com/in/products/1404531

Shielding foil, for fixing the braided shield of shielded cables. Length: 4 cm, width: 1.2 cm $\,$



VS-CABLE-STRIP-VARIO - Stripping tool

1657407 https://www.phoenixcontact.com/in/products/1657407

Stripping tool, for the multi-level stripping of shielded cables



1424659

https://www.phoenixcontact.com/in/products/1424659



WIREFOX 2,5 - Stripping tool

1212368

https://www.phoenixcontact.com/in/products/1212368



Stripping tool, for conductors and cables with a conductor cross section from 0. 08 to 2.5 mm, self-adjusting, stripping length adjustable up to 15 mm, cutting capacity up to 6 mm² stranded/1.5 mm² solid

AI 0,25-6 YE - Ferrule

3203024 https://www.phoenixcontact.com/in/products/3203024



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: yellow

1424659

https://www.phoenixcontact.com/in/products/1424659



A 0,25-7 - Ferrule

3202478

https://www.phoenixcontact.com/in/products/3202478



Ferrule, length: 7 mm, color: silver

A 0,34-7 - Ferrule

3009202 https://www.phoenixcontact.com/in/products/3009202



Ferrule, length: 7 mm, color: silver

1424659

https://www.phoenixcontact.com/in/products/1424659



A 0,5 - 6 - Ferrule

3200218 https://www.phoenixcontact.com/in/products/3200218



Ferrule, length: 6 mm, color: silver

AI 0,5 - 6 WH - Ferrule

3200687 https://www.phoenixcontact.com/in/products/3200687



Ferrule, sleeve length: 6 mm, length: 12 mm, color: white

1424659

https://www.phoenixcontact.com/in/products/1424659



CRIMPFOX 6H - Crimping pliers

1212046

https://www.phoenixcontact.com/in/products/1212046



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm² ... 6 mm², unlockable pressure lock, lateral entry

Phoenix Contact 2023 © - all rights reserved https://www.phoenixcontact.com

PHOENIX CONTACT (I) Pvt. Ltd. A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420 info@phoenixcontact.co.in