

1021783

https://www.phoenixcontact.com/us/products/1021783

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Data connector, Ethernet $CAT6_A$ (10 Gbps), PROFINET $CAT6_A$ (10 Gbps), 8-position, shielded, Plug straight M12 Push-pull external locking, coding: X, Crimp connection, knurl material: PA 6. 6, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

Your advantages

- · Plug and Produce: convenient and secure connection, thanks to the manufacturer-independent locking system
- · Extremely compact, thanks to the small wiring space and high contact density
- · Clear feedback: the connector springs back when not snapped into place correctly
- Safely shielded: reliable shield connection even under extreme mechanical strain
- · Robust connection: suitable for railway applications with high shock and vibration loads

Commercial data

| Item number | 1021783 |
|--------------------------------------|--------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF34 |
| Product key | BF2CJJ |
| Catalog page | Page 27 (C-2-2019) |
| GTIN | 4055626514628 |
| Weight per piece (including packing) | 33.59 g |
| Weight per piece (excluding packing) | 33 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |



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Technical data

Notes

| General | This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling) |
|---------------|---|
| Assembly note | 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. |

Mounting

| Assembly note | Contacts can be clipped in place and unclipped without tools |
|---------------|--|
| Assembly note | Contacts can be clipped in place and unclipped without tools |

Product properties

| Product type | Circular connector (cable-side) |
|----------------------|---------------------------------|
| Application | Data |
| Sensor type | Ethernet |
| Number of positions | 8 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | X |
| Cable outlet | straight |

Data management status

| Article revision | 02 |
|------------------|----|

Insulation characteristics

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

Dimensions

| Dimensional drawing | 14. 15 d |
|--------------------------|--------------|
| Length | 44 mm |
| Wrench size, union nut | 15 mm |
| Wrench size, counter nut | 14 mm |
| External dimensions | |
| Outside diameter | 6.5 mm 10 mm |
| Housing | |
| Diameter housing | 22 mm |



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Material specifications

| Flammability rating according to UL 94 | V0 |
|--|--|
| Seal material | NBR |
| Material of grip body | Zinc die-cast, nickel-plated |
| Contact carrier material | PA 6.6 |
| Material for screw connection | PA 6.6 |
| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

Connection data

Conductor connection

| Connection method | Crimp connection |
|---|--|
| Connection cross section | 0.14 mm ² 0.34 mm ² (flexible) |
| Connection cross section AWG | 26 22 (flexible) |
| Stripping length of the individual wire | 4 mm +0,5 mm |
| Tightening torque | 4 Nm (Pressure nut with coupling sleeve) |

Electrical properties

| Rated surge voltage | 0.8 kV |
|--------------------------------|----------|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage U _N | 48 V AC |
| | 60 V DC |
| Nominal current I _N | 0.5 A |

Mechanical properties

Mechanical data

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

Connector

Connection 1

| Head design | Plug |
|-------------------|----------------------------|
| Head cable outlet | straight |
| Head thread type | M12 |
| Head locking type | Push-pull external locking |
| Coding | X |

Cable/line

| Signal type/category | Ethernet CAT6 _A (IEC 11801), 10 Gbps |
|---|---|
| | PROFINET CAT6 _A (IEC 11801), 10 Gbps |
| Stripping length of the individual wire | 4 mm +0,5 mm |

Environmental and real-life conditions



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Ambient conditions

| Degree of protection | IP65 |
|---------------------------------|------------------------------|
| | IP67 |
| | IP68 |
| | IP69K |
| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |

Standards and regulations

Testing

| HL3) |
|------|
|------|

M12

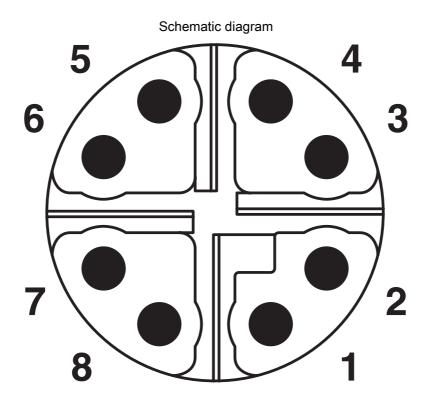
| Standard designation | M12 connector |
|--------------------------|----------------------------------|
| Standards/specifications | IEC 61076-2-109, IEC 61076-2-010 |
| Note | In line with |
| Standard designation | Shock, vibration |
| Standards/specifications | EN 50155:2001 |



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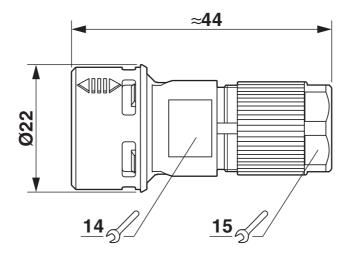


Drawings



M12 PUSH-PULL male pin assignment, 8-pos., pin-side view

Dimensional drawing

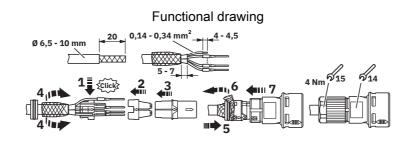


M12 push-pull plug, straight, shielded



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Approvals

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UL Listed

Approval ID: E335024-20120831



cUL Listed

Approval ID: E335024-20120831

cULus Listed



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Classifications

ECLASS

| ECLAS | S-11.0 | 27440102 |
|--------|--------|----------|
| ECLAS | S-12.0 | 27440116 |
| ECLAS | S-13.0 | 27440116 |
| ETIM | | |
| | | |
| ETIM 9 | 0 | EC002635 |
| UNSPSC | | |
| UNSPS | C 21.0 | 39121400 |



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Environmental product compliance

| EU RoHS | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
| China RoHS | |
| Environment friendly use period (EFUP) | EFUP-E |

No hazardous substances above the limits

| EU REACH SVHC | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |



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Mandatory accessories

CC0,6-TS-0,34M AU - Crimp contact

1423643

https://www.phoenixcontact.com/us/products/1423643



Crimp contact, contact diameter: 0.6 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section: 0.14 mm^2 ... 0.34 mm^2 , AWG 26 ... 22

Accessories

NBC-100,0-94S - Data cable

1423514

https://www.phoenixcontact.com/us/products/1423514



Data cable, Ethernet CAT7 (10 Gbps), 8-position, PE-X halogen-free, black, cable length: 100 $\rm m$



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CRIMPFOX-TC MP - Crimping pliers with digital display

1212510

https://www.phoenixcontact.com/us/products/1212510



Crimping pliers, for turned contacts, universal cross section setting, up to a maximum of $2.5~\text{mm}^2$, digital display with 0.01~mm increments, pressure lock can be unlocked, including positioning tool

MICROFOX-SB - Diagonal cutter

1212489

https://www.phoenixcontact.com/us/products/1212489



Electronic diagonal cutter, round head, without chamfer, with opening spring, mirror-polished and oiled, 2-component grip, cutting capacity: soft 0.2 - 2.0 mm; medium hard 1.2 mm; hard 0.5 mm diameter



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WIREFOX-D 13 - Stripping tool

1212162

https://www.phoenixcontact.com/us/products/1212162



Stripping tool, for stripping installation lines of Ø 8 - 13 mm , e.g. NYM 3 x 1.5 mm 2 to 5 x 2.5 mm 2 , single line stripping 0.2 mm 2 - 4 mm 2 , with longitudinal cut blade and sliding knife

WIREFOX SAC - Stripping tool

1212623

https://www.phoenixcontact.com/us/products/1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from \varnothing of 4.4 to 7 mm, any stripping length

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