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Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug angled M12 Push-Pull, D-coded, Crimp connection, knurl material: PA 6.6, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

#### Why buy this product

- 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
- Automated processing possible



## **Key Commercial Data**

| Packing unit                         | 1 STK           |
|--------------------------------------|-----------------|
| GTIN                                 | 4 055626 515205 |
| GTIN                                 | 4055626515205   |
| Weight per Piece (excluding packing) | 43.900 g        |
| Custom tariff number                 | 85366990        |
| Country of origin                    | Germany         |

#### Technical data

#### **Dimensions**

| Wrench size, union nut                  | 15 mm         |
|---|---------------|
| Diameter housing                        | 22 mm         |
| Length                                  | 53 mm         |
| External cable diameter                 | 4.5 mm 7.5 mm |
| Stripping length of the sheath          | 18 mm         |
| Stripping length of the individual wire | 4 mm +0,5 mm  |

#### Ambient conditions



# Technical data

## Ambient conditions

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

#### General

| Note                           | 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) |
|--------------------------------|--|
| Rated current at 40°C          | 4 A  |
| Rated voltage                  | 48 V AC  |
|                                | 60 V DC  |
| Number of positions            | 4  |
| Insulation resistance          | ≥ 100 Ω  |
| Coding                         | D - data   |
| Standards/regulations          | M12 connector IEC 61076-2-101 In line with   |
|                                | Shock, vibration EN 50155:2001   |
| Signal type/category           | PROFINET CAT5 (IEC 11801), 100 Mbps  |
| Status display                 | No   |
| Overvoltage category           | II   |
| Degree of pollution            | 3  |
| Connection method              | Crimp connection   |
| Conductor cross section        | 0.34 mm² 1 mm² (flexible)  |
| Conductor cross section AWG    | 22 18 (flexible)   |
| Wire diameter incl. insulation | ≤ 2.55 mm  |
| Insertion/withdrawal cycles    | ≥ 100  |
| Torque                         | 1.5 Nm (Screw plug insert with sleeve housing as far it will go)   |
|                                | 4 Nm (Pressure nut with coupling sleeve)   |

## Material

| Flammability rating according to UL 94 | V0   |  |
|--|--|--|
| Contact carrier material               | PA 6.6   |  |
| Material of grip body                  | Zinc die-cast, nickel-plated   |  |
| Material, knurls                       | PA 6.6   |  |
| Sealing material                       | NBR  |  |
| 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) |  |

## Standards and Regulations

| Standard designation  | M12 connector    |
|-----------------------|------------------|
| Standards/regulations | IEC 61076-2-101  |
| Standard designation  | Shock, vibration |



# Technical data

## Standards and Regulations

| Standards/regulations                  | EN 50155:2001 |
|--|---------------|
| Flammability rating according to UL 94 | V0            |

# **Environmental Product Compliance**

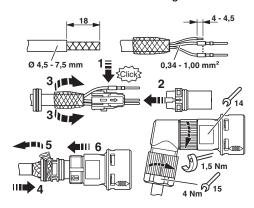
| China RoHS | Environmentally Friendly Use Period = 50  |  |
|------------|---|--|
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |  |

# **Drawings**

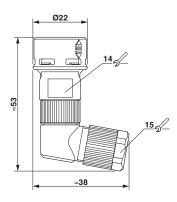
#### Schematic diagram



#### Functional drawing



#### Dimensional drawing



# Classifications

#### eCl@ss

| eCl@ss 9.0 | 27440102 |
|------------|----------|
| ETIM       |          |

| ETIM 5.0 | EC002062 |
|----------|----------|
| ETIM 6.0 | EC002062 |



| Approvals        |     |  |                          |
|------------------|-----|--|--------------------------|
| Approvals        |     |  |                          |
| Approvals<br>EAC |     |  |                          |
| Ex Approvals     |     |  |                          |
| Approval details |     |  |                          |
| EAC              | EAC |  | RU C-<br>DE.Al30.B.01102 |

## Accessories

Accessories

Crimp contact

Crimp contact - CC1,0-TS-1,00M AU - 1423645



Crimp contact, contact diameter: 1 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section: 0.34 mm² ... 1 mm² AWG 22 ... 18

#### Crimping tool

Crimping pliers - CRIMPFOX-TC MP - 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

#### Data cable by the meter

Network cable - VS-OE-OE-93R/... - 1417388



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m), For robots



#### Accessories

Network cable - VS-OE-OE-936/... - 1417375



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m), For railway applications

Network cable - VS-OE-OE-937/... - 1402687



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m), For railway applications

#### Electronics pliers

Diagonal cutter - MICROFOX-SB - 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

#### Stripping tool

Stripping tool - WIREFOX-D 13 - 1212162



Stripping tool, for stripping installation lines of  $\emptyset$  8 - 13 mm , e.g. NYM 3 x 1.5 mm² to 5 x 2.5 mm², single line stripping 0.2 mm² - 4 mm² , with longitudinal cut blade and sliding knife

Stripping tool - WIREFOX SAC - 1212623



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

Necessary add-on products



## Accessories

Crimp contact - CC1,0-TS-1,00M AU - 1423645



Crimp contact, contact diameter: 1 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section: 0.34 mm² ... 1 mm² AWG 22 ... 18

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