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Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12, Coding: D, Crimp connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

### Your advantages

- Extremely compact, thanks to the small wiring space and high contact density
- Safe use in the field, thanks to a high degree of protection
- 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 pc
GTIN	4 055626 357737
GTIN	4055626357737
Weight per Piece (excluding packing)	20.000 g
Custom tariff number	85366990
Country of origin	Germany
Note	Made to Order (non-returnable)

### Technical data

#### **Dimensions**

Wrench size, union nut	15 mm
Diameter housing	16 mm
Length	43 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)
Ambient temperature (assembly)	-5 °C 50 °C
Degree of protection	IP65
	IP67

### 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)
	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.
Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	D - data
Standards/regulations	M12 connector IEC 61076-2-101
	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	0.14 mm² 1 mm² (flexible)
Conductor cross section AWG	26 18 (flexible)
Wire diameter incl. insulation	≤ 2.55 mm
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 knurl)
	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	Zinc die-cast, nickel-plated	
Sealing material	FKM	
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

Standards/specifications	M12 connector IEC 61076-2-101
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## Technical data

## Standards and Regulations

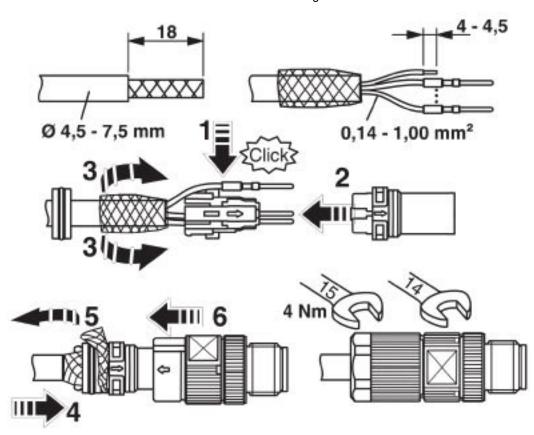
	Shock, vibration EN 50155:2001
Flammability rating according to UL 94	V0

## **Environmental Product Compliance**

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

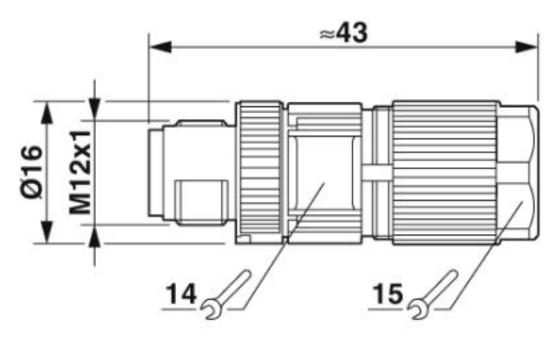
## Drawings

### Functional drawing





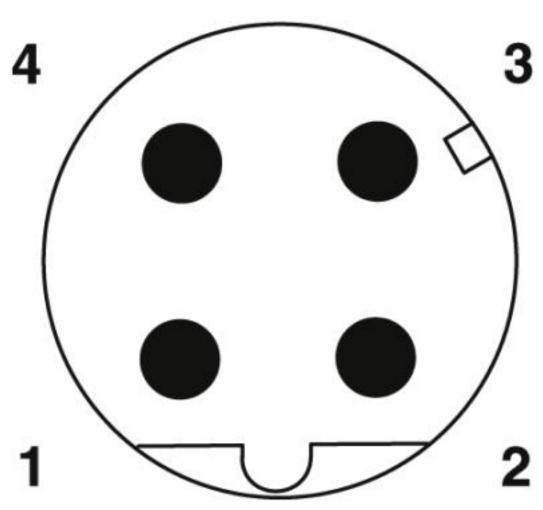
## Dimensional drawing



Plug, M12 x 1, straight, shielded







Pin assignment M12 male connector, 4-pos., D-coded, male side

## Classifications

## eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 5.1	27260701
eCl@ss 6.0	27279200
eCl@ss 7.0	27440104
eCl@ss 8.0	27440104
eCl@ss 9.0	27440102

### **ETIM**

ETIM 5.0	EC002635
ETIM 6.0	EC002635
ETIM 7.0	EC002635



Approvals				
Approvals				
Approvals				
EAC				
Ex Approvals				
Approval details				
EAC	EAC			RU C- DE.BL08.B.00511

### Accessories

Accessories

Crimp contact

Crimp contact - CC1,0-TS-0,34M AU - 1064040



Crimp contact, contact diameter: 1 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section: 0.14 mm² ... 0.34 mm² AWG 26 ... 22

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 mm², digital display with 0.01 mm increments, pressure lock can be unlocked, including positioning tool



### Accessories

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

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

### Screwdriver tools

Tool - SAC BIT M12-D16 - 1200305



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, knurl diameter: 16 mm, for 4 mm hexagonal drive



### Accessories

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



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

### 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 mm<sup>2</sup> to 5 x 2.5 mm<sup>2</sup>, single line stripping 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, 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

### Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



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

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

Necessary add-on products



## Accessories

Crimp contact - CC1,0-TS-0,34M AU - 1064040



Crimp contact, contact diameter: 1 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section:  $0.14~mm^2 \dots 0.34~mm^2~AWG~26 \dots 22$ 

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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