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Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12, D-coded, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

## Your advantages

- Conveniently connect stranded conductors, thanks to lever
- ☑ Reliable and quick connection of electric cables
- Flexible signal and data cabling
- Quick and easy installation, thanks to Push-in connection technology



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 055626 376097
GTIN	4055626376097
Weight per Piece (excluding packing)	37.300 g
Custom tariff number	85366990
Country of origin	Germany

## Technical data

#### **Dimensions**

Diameter housing	19 mm
Length	60 mm
External cable diameter	4 mm 8 mm
Stripping length of the sheath	29 mm
Stripping length of the individual wire	8 mm

### Ambient conditions

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



# Technical data

# Ambient conditions

	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)
Rated current at 40°C	4 A
Rated voltage	60 V DC
	48 V AC
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 (on the basis of IEC 11801), 100 Mbps
Status display	No
Overvoltage category	II
Degree of pollution	3
Connection method	Push-in connection
Conductor cross section	0.14 mm² 0.75 mm² (without ferrule)
	0.08 mm² 0.5 mm² (with ferrule)
	0.14 mm² 0.75 mm² (solid)
Conductor cross section AWG	26 18 (without ferrule)
	28 20 (with ferrule)
Insertion/withdrawal cycles	≥ 100 (Quantity: 500 with Phoenix Contact mating connector)
Torque	0.4 Nm (M12 knurl)
	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)
Assembly instructions	The wires can be connected both with ferrules and without ferrules

#### Material

Flammability rating according to UL 94	V0	
Contact material	CuSn	
Contact surface material	Ni/Au	
Contact carrier material	PA 6.6	
Material of grip body	Zinc die-cast, nickel-plated	
Material, knurls	Zinc die-cast, nickel-plated	
Sealing material	NBR	
Additional material specifications	TPE-U (Clamping cage, weight: 1.1 g)	
	PA 6 (Actuation lever)	
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)	



## Technical data

## Material

	PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
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## Standards and Regulations

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

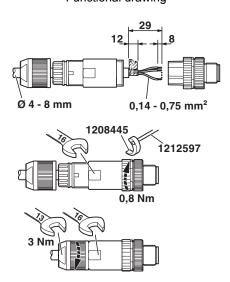
# **Drawings**

## Schematic diagram



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

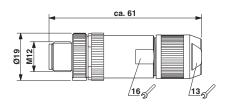
# Functional drawing



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.



## Dimensional drawing



M12 SPEEDCON plug, straight, shielded

# Classifications

# eCl@ss

eCl@ss 5.1	27143423
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

# Approvals

Approvals

Approvals

EAC / UL Listed / cUL Listed / cULus Listed

Ex Approvals

## Approval details

EAC RU C-DE.AI30.B.01102



# Approvals

UL Listed	LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		E221474
Nominal voltage UN			60 V	
Nominal current IN			4 A	
mm²/AWG/kcmil			26-18	

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		E221474
Nominal voltage UN			60 V	
Nominal current IN			4 A	
mm²/AWG/kcmil			26-18	

# Accessories

Accessories

Connector

Ferrule - AI 0,25- 6 YE - 3203024



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

# Ferrule - A 0,25-7 - 3202478



Ferrule, length: 7 mm, color: silver



## Accessories

Ferrule - A 0,34-7 - 3009202



Ferrule, length: 7 mm, color: silver

Ferrule - A 0,5 - 6 - 3200218



Ferrule, length: 6 mm, color: silver

Ferrule - AI 0,5 - 6 WH - 3200687



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

### Crimping tool

Crimping pliers - CRIMPFOX 6H - 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

### Data cable by the meter

Network cable - VS-OE-OE-93B/... - 1417362



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PVC, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)



### Accessories

Network cable - VS-OE-OE-93C/... - 1417491



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 entry (0.5 ... 400 m), For drag chains

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

### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



Screwdriver tools



### Accessories

Tool - SACC BIT M12-D20 - 1208445



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

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

### Shield connection

Shielding foil - ALU-SB - 1404531

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



### Stripping tool

Stripping tool - WIREFOX 2,5 - 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

## 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



## Accessories

Torque screwdriver - TSD 08 SAC - 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

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



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

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407



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

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