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Bus system connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, Coding: D, Insulation displacement connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

## Your advantages

- Safe use in the field, thanks to a high degree of protection
- ☑ Insulation displacement connection: innovative and time-saving assembly without stripping the single wire
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 166232
GTIN	4046356166232
Weight per Piece (excluding packing)	60.000 g
Custom tariff number	85366990
Country of origin	Germany

## Technical data

#### **Dimensions**

External cable diameter	4 mm 8 mm
Stripping length of the sheath	≥ 35 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C 85 °C
Degree of protection	IP67



## Technical data

## 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	1.75 A
Rated voltage	48 V AC
	60 V DC
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	D - data
Standards/regulations	M12 connector according to IEC 61076-2-101
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	Insulation displacement connection
Conductor cross section AWG	23 22
Wire diameter including insulation	1 mm 1.6 mm
Frequency of connections between conductors of the same cross section	≥ 10
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 knurl)
	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)
Assembly instructions	The connector pin assignment can be rotated 45° to the cable outlet
Transmission characteristics (category)	CAT5

## Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA6
Material of grip body	Zinc die-cast, nickel-plated
Material, knurls	Nickel-plated brass
Sealing material	Neoprene

Standards and Regulations



## Technical data

## Standards and Regulations

Standards/specifications	M12 connector according to IEC 61076-2-101
Flammability rating according to UL 94	V0

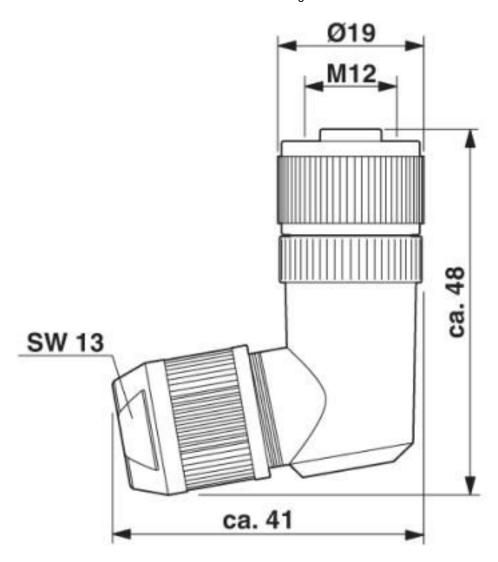
## **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

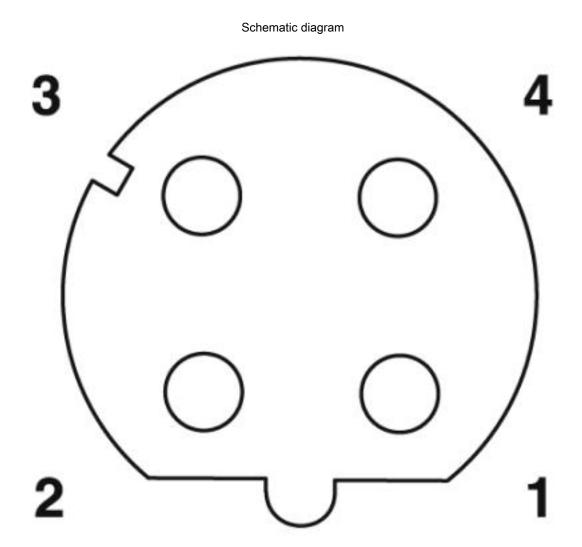


Dimensional drawing



M12 x 1 socket, angled, shielded





Pin assignment M12 socket, 4-pos., D-coded, female side

## Classifications

## eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 4.0	27060300
eCl@ss 4.1	27060300
eCl@ss 5.0	27061800
eCl@ss 5.1	27061800
eCl@ss 6.0	27279200
eCl@ss 7.0	27440104
eCl@ss 8.0	27440104

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Classifications	
eCl@ss	
eCl@ss 9.0	27440102
ETIM	
ETIM 3.0	EC002062
ETIM 4.0	EC002062
ETIM 5.0	EC002062
ETIM 6.0	EC002062
UNSPSC	
UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	39121413
UNSPSC 18.0	39121413
UNSPSC 19.0	39121413
UNSPSC 20.0	39121413
UNSPSC 21.0	39121413
Approvals	
Approvals	
Approvals	
EAC / EAC	
Ex Approvals	
Approval details	
EAC [R	RU C- DE.Al30.B.01102

ERE

EAC

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DE.BL08.B.00511



#### Accessories

Accessories

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)

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



## Accessories

## 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

## Plug for cable screw gland

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



#### Screwdriver tools

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



## Accessories

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-D 40 - 1212161



Stripping tool, for stripping cables of 4.5 mm - 40 mm- $\emptyset$ , insulation thickness of up to 4.5 mm, pivoting blade for round, lengthwise, and spiral cuts

## 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

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



## Accessories

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