

# Data connector - SACC-M12MRD-4Q SH PN



1554539

<https://www.phoenixcontact.com/pc/products/1554539>

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



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## 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

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## Commercial Data

Item number	1554539
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF2CDN
Catalog Page	Page 343 (C-2-2019)
GTIN	4046356166225
Weight per Piece (including packing)	44.6 g
Weight per Piece (excluding packing)	44.6 g
Customs tariff number	85366990
Country of origin	DE

## 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 instruction:	<b>NOTE:</b> 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.

### Product properties

Product type	Circular connector (cable-side)
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	D - data
Cable outlet	angled

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Ambient conditions

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

### Dimensions

#### External dimensions

Outside diameter	4 mm ... 8 mm
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### Connector

Insertion/withdrawal cycles	≥ 100
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#### Header 1

Head design	Plug
Head cable outlet	angled
Head thread type	M12
Coding	D-coded
Number of positions	4
Coding	D - data
Insertion/withdrawal cycles	≥ 100
Connection method	Insulation displacement connection
Contact material	CuSn

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Contact surface material	Ni/Au
Number of positions	4
Coding	D - data
Insertion/withdrawal cycles	≥ 100
Connection method	Insulation displacement connection
Contact material	CuSn
Contact surface material	Ni/Au

## Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	1.75 A

## Material specifications

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

## Connection data

### Conductor connection

Connection method	Insulation displacement connection
Cross section AWG	23 ... 22

### Pin assignment

Contact   Color (signal designation)   Contact (optional)	1 (Plug) = YE (TD+)
	3 (Plug) = OG (TD-)
	2 (Plug) = WH (RD+)
	4 (Plug) = BU (RD-)

## Mounting

Assembly instructions	The connector pin assignment can be rotated 45° to the cable outlet
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## Standards and regulations

### M12

Standards/specifications	according to IEC 61076-2-101
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## Cable / line

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## Cable structure

Signal type/category	
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	PROFINET CAT5 (on the basis of IEC 11801), 100 Mbps
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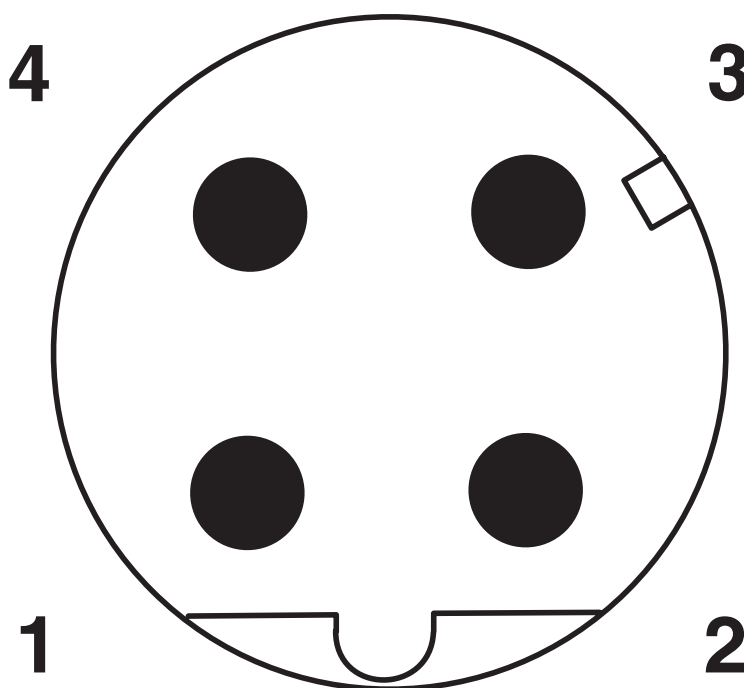
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## Drawings

Schematic diagram



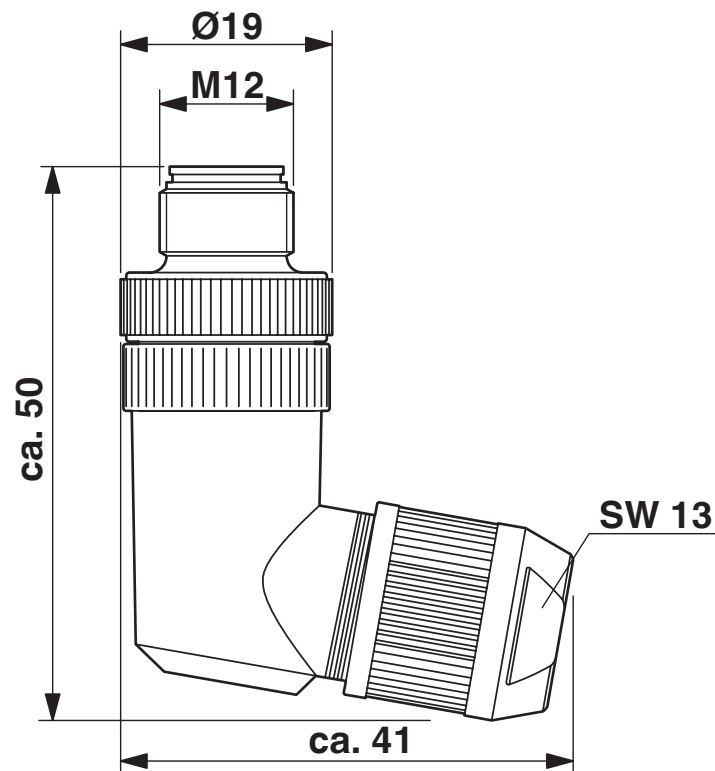
Pin assignment M12 male connector, 4-pos., D-coded, male side

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Dimensional drawing



M12 x 1 male plug, angled, shielded

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## Approvals



**EAC**

Approval ID: RU C-DE.AI30.B.01102



**EAC**

Approval ID: RU C-DE.BL08.B.00511



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## Classifications

### ECLASS

ECLASS-10.0.1	27440102
ECLASS-9.0	27440102
ECLASS-11.0	27440102

### ETIM

ETIM 8.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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## Accessories

### Shielding foil

Shielding foil - ALU-SB - 1404531

<https://www.phoenixcontact.com/pc/products/1404531>

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



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## Network cable

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

<https://www.phoenixcontact.com/pc/products/1417362>

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



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## Network cable

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

<https://www.phoenixcontact.com/pc/products/1417491>



Network cable, PROFINET CAT5 (100 Mbps), 4-position halogen-free, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m), For drag chains

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## Network cable

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

<https://www.phoenixcontact.com/pc/products/1417388>



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

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## Network cable

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

<https://www.phoenixcontact.com/pc/products/1417375>



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

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## Network cable

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

<https://www.phoenixcontact.com/pc/products/1402687>



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

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## Diagonal cutter

Diagonal cutter - MICROFOX-SB - 1212489

<https://www.phoenixcontact.com/pc/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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## Stripping tool

Stripping tool - WIREFOX-D 40 - 1212161

<https://www.phoenixcontact.com/pc/products/1212161>



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

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## Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

<https://www.phoenixcontact.com/pc/products/1208429>



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

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## Torque screwdriver

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

<https://www.phoenixcontact.com/pc/products/1212224>



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

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## Torque screwdriver

Torque screwdriver - TSD 08 SAC - 1212597

<https://www.phoenixcontact.com/pc/products/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

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## Adapter insert

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

<https://www.phoenixcontact.com/pc/products/1212600>



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



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## Sealing cap

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

<https://www.phoenixcontact.com/pc/products/1430873>

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



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## Tool

Tool - SACC BIT M12-D20 - 1208445

<https://www.phoenixcontact.com/pc/products/1208445>

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



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