

SACC-M12FRD-4Q SH PN - Data connector



1554542

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Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, coding: D, Insulation displacement connection, knurl material: Brass, nickel-plated, 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

Commercial data

Item number	1554542
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF31
Product key	BF2CDN
Catalog page	Page 343 (C-2-2019)
GTIN	4046356166232
Weight per piece (including packing)	50 g
Weight per piece (excluding packing)	49.7 g
Customs tariff number	85366990
Country of origin	DE

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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:	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.

Mounting

Assembly instructions	The connector pin assignment can be rotated 45° to the cable outlet
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Product properties

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

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Dimensions

External dimensions

Outside diameter	4 mm ... 8 mm
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Material specifications

Flammability rating according to UL 94	V0
Seal material	Neoprene
Material of grip body	Zinc die-cast, nickel-plated
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6
Material for screw connection	Brass, nickel-plated

Connection data

Conductor connection

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Connection method	Insulation displacement connection
Connection cross section	0.25 mm ² ... 0.5 mm ² (flexible)
	0.25 mm ² ... 0.5 mm ² (solid)
Connection cross section AWG	24 ... 20 (flexible)
	24 ... 20 (solid)
Tightening torque	0.4 Nm (M12 knurl)
	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	1.75 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Connector

Connection 1

Head design	Socket
Head cable outlet	angled
Head thread type	M12
Coding	D

Cable/line

Signal type/category	PROFINET CAT5 (based on IEC 11801), 100 Mbps
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Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

M12

Standard designation	M12 connector
Standards/specifications	according to IEC 61076-2-101

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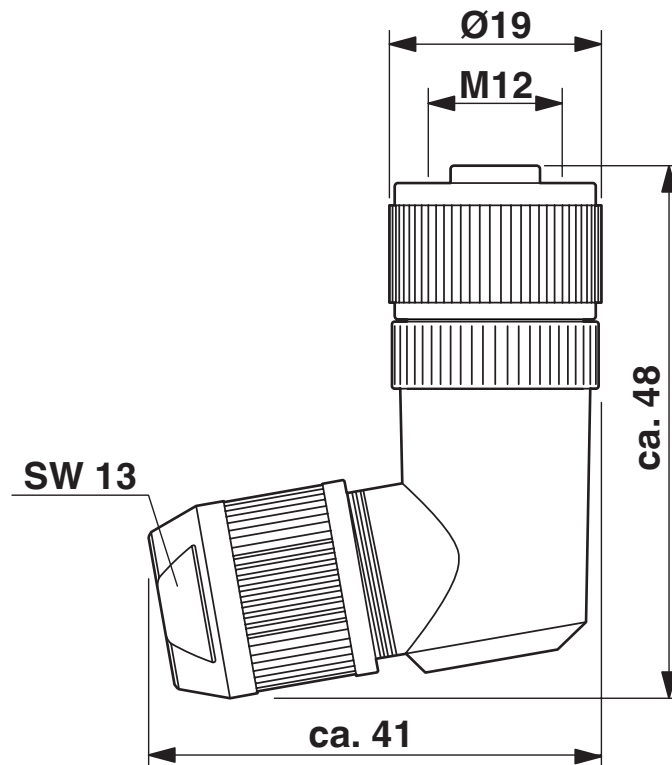
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Drawings

Dimensional drawing



M12 x 1 socket, angled, shielded

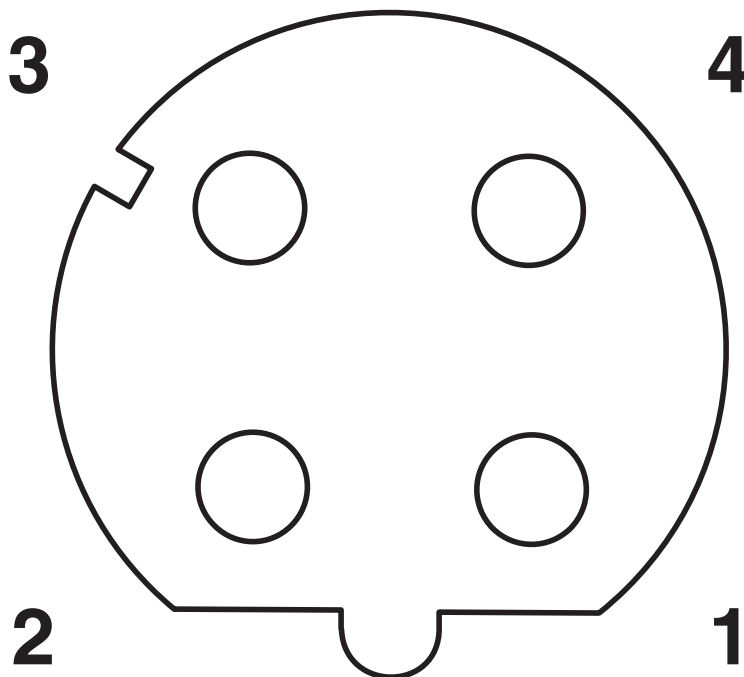
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Schematic diagram



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

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1554542>



EAC

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

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Classifications

ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

ETIM

ETIM 9.0	EC002635
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Accessories

PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/products/1430899>

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



VS-OE-OE-93B/... - Data cable

1417362

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



Data cable, PROFINET CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded (Aluminum-coated foil, tinned copper braided shield), free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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VS-OE-OE-93C/... - Data cable

1417491

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Data cable, PROFINET CAT5 (100 Mbps), 4-position, PUR/FRNC halogen-free, green RAL 6018, shielded (Aluminum-coated foil, tinned copper braided shield), free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

VS-OE-OE-93R/... - Data cable

1417388

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



Data cable, PROFINET CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded (Tinned copper braided shield), free cable end, on free cable end, cable length: Free input (0.5 ... 100 m)

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VS-OE-OE-936/... - Data cable

1417375

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Data cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded (Plastic-coated aluminum foil, tinned copper braided shield), free cable end, on free cable end, cable length: Free input (0.5 ... 100 m)

VS-OE-OE-937/... - Data cable

1402687

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



Data cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded (Plastic-coated aluminum foil, tinned copper braided shield), free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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ALU-SB - Shielding foil

1404531

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

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



TSD 04 SAC - Torque screwdriver

1208429

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

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



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SACC BIT M12-D20 - Tool

1208445

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

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



TSD-M 1,2NM - Torque screwdriver

1212224

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



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TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

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



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

TSD 08 SAC - Torque screwdriver

1212597

<https://www.phoenixcontact.com/us/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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WIREFOX-D 40 - Stripping tool

1212161

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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

MICROFOX-SB - Diagonal cutter

1212489

<https://www.phoenixcontact.com/us/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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