

# SACC-M12FRD-4Q SH PN - Data connector

1554542

<https://www.phoenixcontact.com/us/products/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	AF2CDN
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 note	<b>NOTE:</b> Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.

### Mounting

Assembly note	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

### 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 <sup>2</sup> ... 0.5 mm <sup>2</sup> (flexible)
	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (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 <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	1.75 A
	100 Mbps

## Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

## 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) (male connector/female connector)	-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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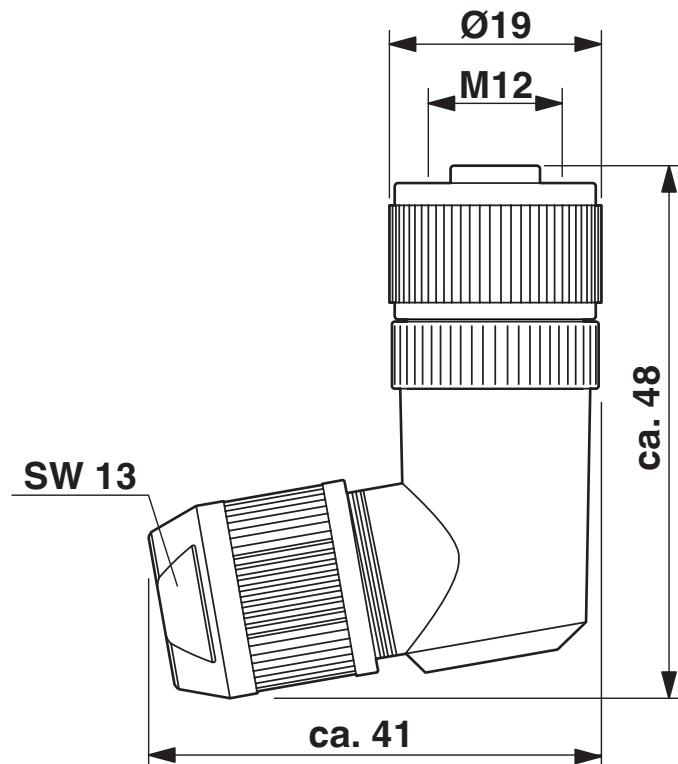
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## Drawings

Dimensional drawing



M12 x 1 socket, angled, shielded

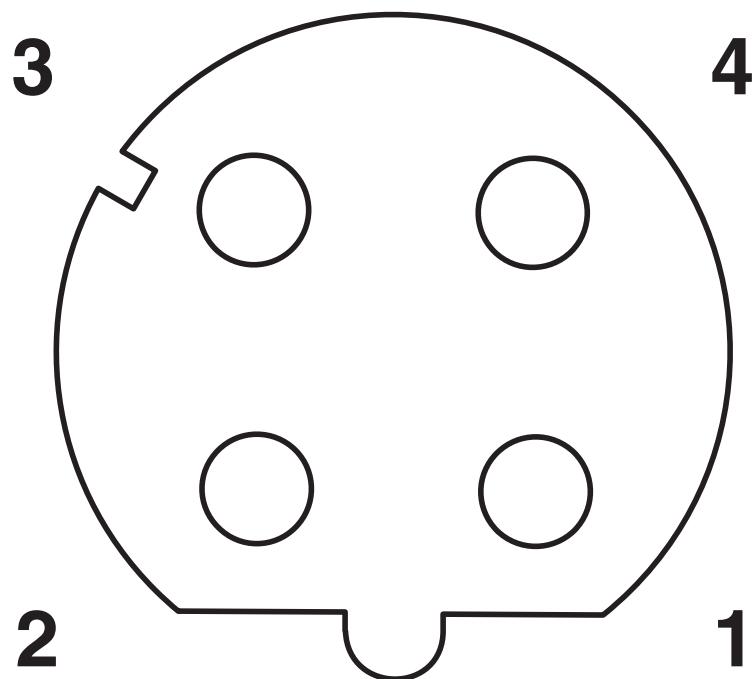
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Schematic diagram



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

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## Classifications

### ECLASS

ECLASS-13.0	27440116
ECLASS-15.0	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.)	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: n/a)
SCIP	50dcce9b-5f2e-4094-a162-a9035571984c

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