

# SACC-P12FRD-4PL-CM SH PN - Connector



1438185

<https://www.phoenixcontact.com/gb/products/1438185>

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Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12 Push-Pull, coding: D, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm



## Your advantages

- Time-saving Push-Lock connection: Tool-free connection and disconnection of conductors by opening the contact levers
- Intuitive connection: Easy assignment of individual litz wires with color-coded and numerical identification of the contact levers
- Integrated Push-in Technology: Wire rigid and pretreated conductors easily by means of simple, direct insertion
- Shock- and vibration-resistant connection: Proven spring-cage technology guarantees secure and reliable contacting
- Safely shielded: Reliable 360° shield connection even under extreme mechanical strain
- Flexible cable outlets with angled connectors
- Save time, thanks to installation with push-pull fast locking

## Commercial data

Item number	1438185
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AF2CFN
Product key	AF2CFN
GTIN	4063151816100
Weight per piece (including packing)	42.1 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85366990
Country of origin	DE

## Technical data

### Notes

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.
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### Product properties

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

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

### Connection data

#### Conductor connection

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Connection method	Push-lock spring connection
Connection cross section	0.14 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (without ferrule)
	0.08 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (with ferrule)
	0.14 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (solid)
Connection cross section AWG	26 ... 18 (without ferrule)
	28 ... 20 (with ferrule)
Stripping length of the individual wire	7 mm
Tightening torque	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)

## Connection assignment

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

## Electrical properties

Rated surge voltage	1.5 kV
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>	4 A (2 A when using 0.14 mm <sup>2</sup> conductors)
Transmission speed	100 Mbps

## 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
Head locking type	Push-Pull
Coding	D

## Cable/line

Signal type/category	PROFINET CAT5 (based on IEC 11801), 100 Mbps
Stripping length of the individual wire	7 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
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	IP67
Ambient temperature (operation) (male connector/female connector)	-40 °C ... 85 °C (Plug / socket)

## Standards and regulations

### Testing

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

### M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Standard designation	Shock, vibration
Standards/specifications	EN 50155 Cat. 1B
Standard designation	M12-Push-Pull
Standards/specifications	IEC 61076-2-010

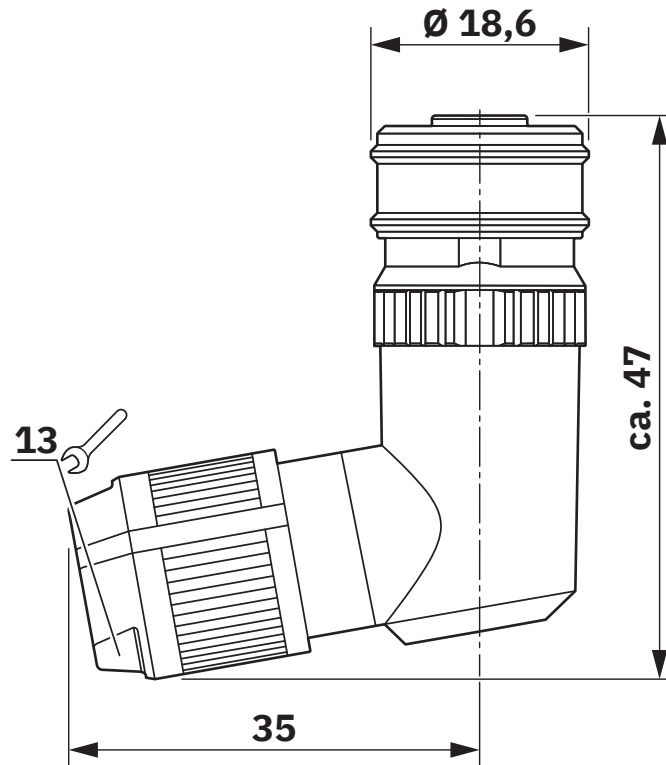
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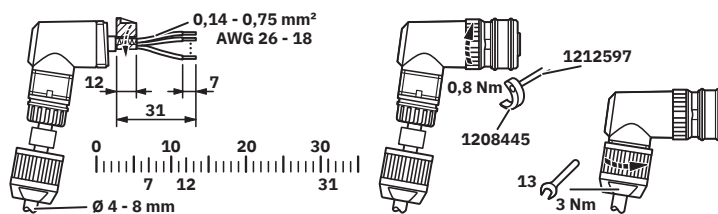
## Drawings

Dimensional drawing



Dimensional drawing

Functional drawing



Functional drawing

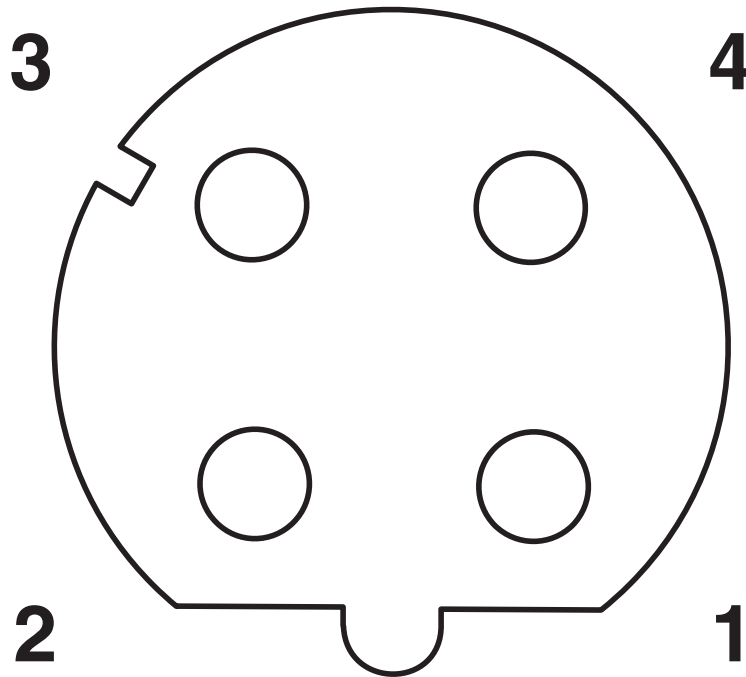
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Schematic diagram



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 10.0	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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