

1424684

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Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug angled M12, 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

## **Commercial Data**

Item number	1424684
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF2
Product Key	BF2CFN
Catalog Page	Page 343 (C-2-2019)
GTIN	4055626376110
Weight per Piece (including packing)	38.8 g
Weight per Piece (excluding packing)	39 g
Customs tariff number	85366990
Country of origin	DE



1424684

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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	
	The wires can be connected both with ferrules and without ferrules	

# Product properties

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

## Insulation characteristics

insulation characteristics	
Overvoltage category	II
Degree of pollution	3

### **Dimensions**

Dimensional drawing	019 M12 Ca. 41
Length	50 mm
External dimensions	
Outside diameter	4 mm 8 mm
Housing	
Diameter housing	19 mm



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# Material specifications

Material	TPE-U	
	PA 6	
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: 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)	

# Connection data

#### Conductor connection

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	0.4 Nm (M12 knurl)
	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)

#### Pin 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 mm² conductors)

# Mechanical properties



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Insertion/withdrawal cycles	≥ 100 (Quantity: 500 with Phoenix Contact mating connector)
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#### Connector

#### Connection 1

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

#### Cable/line

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

## Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-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	
Standards/specifications	IEC 61076-2-101
Standards/specifications	EN 50155:2001

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