

https://www.phoenixcontact.com/us/products/1021783

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Data connector, Ethernet CAT6<sub>A</sub> (10 Gbps), PROFINET CAT6<sub>A</sub> (10 Gbps), 8-position, shielded, Plug straight M12 Push-Pull, coding: X, Crimp connection, knurl material: PA 6.6, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

## Your advantages

- Plug and Produce: convenient and secure connection, thanks to the manufacturer-independent locking system
- · Extremely compact, thanks to the small wiring space and high contact density
- · Clear feedback: the connector springs back when not snapped into place correctly
- Safely shielded: reliable shield connection even under extreme mechanical strain
- · Robust connection: suitable for railway applications with high shock and vibration loads

# Commercial data

Item number	1021783
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF34
Product key	BF2CJJ
Catalog page	Page 27 (C-2-2019)
GTIN	4055626514628
Weight per piece (including packing)	33.59 g
Weight per piece (excluding packing)	33.59 g
Customs tariff number	85366990
Country of origin	DE

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1021783

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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)
General	<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.

## Mounting

Assembly instructions	Contacts can be clipped in place and unclipped without tools
Connection method	Crimp connection

## **Product properties**

Material of grip body

Product type	Circular connector (cable-side)
Sensor type	Ethernet
Number of positions	8
Application	Data
No. of cable outlets	1
Shielded	yes
Coding	X
Cable outlet	straight
Insulation characteristics	
Overvoltage category	
Degree of pollution	3
Dimensional drawing	
Dimensional drawing	
Length	44 mm
Wrench size, union nut	15 mm
Wrench size, counter nut	14 mm
External dimensions	
Outside diameter	6.5 mm 10 mm
Housing	
Diameter housing	22 mm
laterial specifications	
Flammability rating according to UL 94	VO
Seal material	NBR

Zinc die-cast, nickel-plated



1021783

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Contact carrier material	PA 6.6
Material for screw connection	PA 6.6
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

## Connection data

Conductor connection	
Connection method	Crimp connection
Connection cross section	0.14 mm <sup>2</sup> 0.34 mm <sup>2</sup> (flexible)
Connection cross section AWG	26 22 (flexible)
Stripping length of the individual wire	4 mm +0,5 mm
Tightening torque	4 Nm (Pressure nut with coupling sleeve)

### **Electrical properties**

Rated surge voltage	0.8 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	0.5 A

### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

### Connector

Connection 1	
Head design	Plug
Head cable outlet	straight
Head thread type	M12
Head locking type	Push-Pull
Coding	X

### Cable/line

Signal type/category	Ethernet CAT6 <sub>A</sub> (IEC 11801), 10 Gbps
	PROFINET CAT6 <sub>A</sub> (IEC 11801), 10 Gbps
Stripping length of the individual wire	4 mm +0,5 mm

### Environmental and real-life conditions

Degree of protection	IP65
	IP67
	IP68

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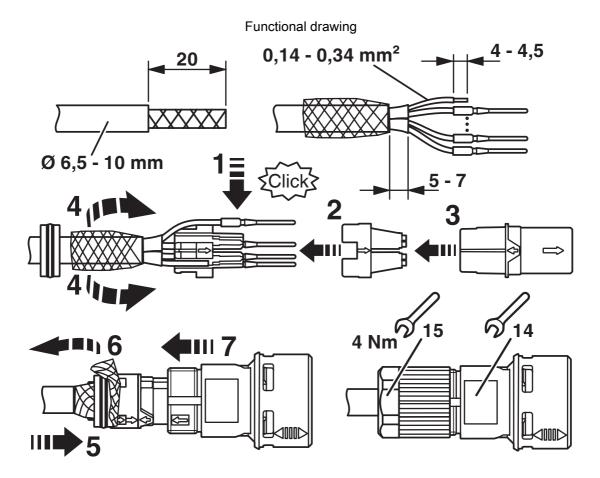
	IP69K
Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)
Standards and regulations	
Testing	
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
M12	
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-109, IEC 61076-2-010
Note	In line with
Standard designation	Shock, vibration
Standards/specifications	EN 50155:2001



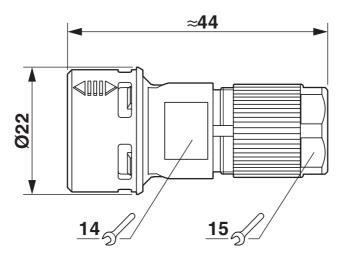
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# Drawings



Dimensional drawing

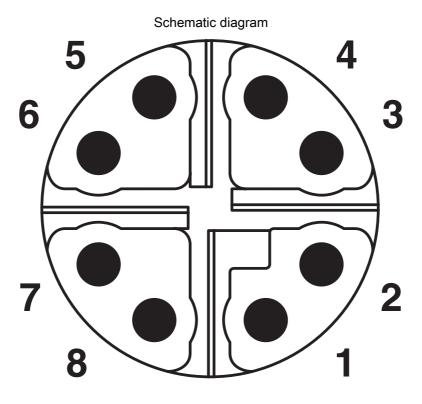


M12 push-pull plug, straight, shielded



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M12 PUSH-PULL male pin assignment, 8-pos., pin-side view

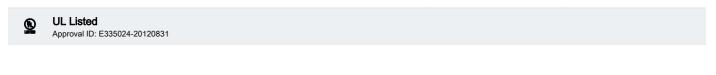


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# Approvals

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🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1021783



**cUL Listed** Approval ID: E335024-20120831

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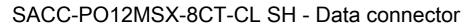
# Classifications

### ECLASS

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

### ETIM

	ETIM 9.0	EC002635		
UNSPSC				
	UNSPSC 21.0	39121400		



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# Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Mandatory accessories

CC0,6-TS-0,34M AU - Crimp contact

1423643

https://www.phoenixcontact.com/us/products/1423643

Crimp contact, contact diameter: 0.6 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section:  $0.14 \text{ mm}^2 \dots 0.34 \text{ mm}^2$ , AWG 26 ... 22

## Accessories

NBC-100,0-94S - Data cable

1423514 https://www.phoenixcontact.com/us/products/1423514



Data cable, Ethernet CAT7 (10 Gbps), 8-position, cable length: 100 m

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### CRIMPFOX-TC MP - Crimping pliers with digital display

1212510

https://www.phoenixcontact.com/us/products/1212510



Crimping pliers, for turned contacts, universal cross section setting, up to a maximum of  $2.5 \text{ mm}^2$ , digital display with 0.01 mm increments, pressure lock can be unlocked, including positioning tool

### 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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#### WIREFOX-D 13 - Stripping tool

#### 1212162

https://www.phoenixcontact.com/us/products/1212162



Stripping tool, for stripping installation lines of Ø 8 - 13 mm , e.g. NYM 3 x 1.5 mm<sup>2</sup> to 5 x 2.5 mm<sup>2</sup>, single line stripping 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, with longitudinal cut blade and sliding knife

#### WIREFOX SAC - Stripping tool

1212623 https://www.phoenixcontact.com/us/products/1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from  $\emptyset$  of 4.4 to 7 mm, any stripping length

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