

1021784

https://www.phoenixcontact.com/us/products/1021784

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Data connector, Ethernet CAT6 $_{\rm A}$  (10 Gbps), PROFINET CAT6 $_{\rm A}$  (10 Gbps), 8-position, shielded, Plug angled M12 Push-Pull, 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	1021784
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF34
Product key	BF2CJJ
Catalog page	Page 27 (C-2-2019)
GTIN	4055626514635
Weight per piece (including packing)	47.6 g
Weight per piece (excluding packing)	47.6 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)
General	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	Contacts can be clipped in place and unclipped without tools
	The pin assignment can be rotated in a 30° pitch to the cable outlet
Connection method	Crimp connection

### Product properties

Circular connector (cable-side)
Ethernet
8
Data
1
yes
X
angled

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

#### **Dimensions**

Dimensional drawing	3
Length	53 mm
Wrench size, union nut	15 mm
Wrench size, counter nut	14 mm
External dimensions	
Outside diameter	6.5 mm 10 mm



R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 -

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	Diameter housing	22 mm	
Ma	Material specifications		
	Flammability rating according to UL 94	V0	
	Seal material	NBR	
	Material of grip body	Zinc die-cast, nickel-plated	
	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,	

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	1.5 Nm (Screw plug insert with sleeve housing as far it will go)
	4 Nm (Pressure nut with coupling sleeve)

### Electrical properties

Rated surge voltage	0.8 kV
Insulation resistance	≥ 100 Ω
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
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### Connector

### Connection 1

Head design	Plug
Head cable outlet	angled
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



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Standards/specifications

	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			
Ambient conditions			
Degree of protection	IP65		
	IP67		
	IP68		
	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		
Note	In line with		
Standard designation	Shock, vibration		

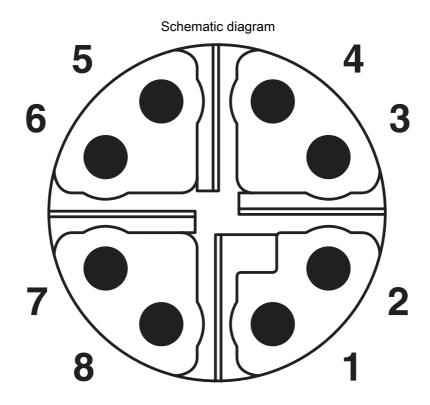
EN 50155:2001



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## Drawings



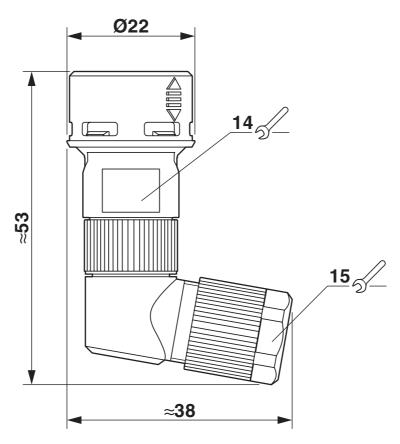
M12 PUSH-PULL male pin assignment, 8-pos., pin-side view



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## Dimensional drawing

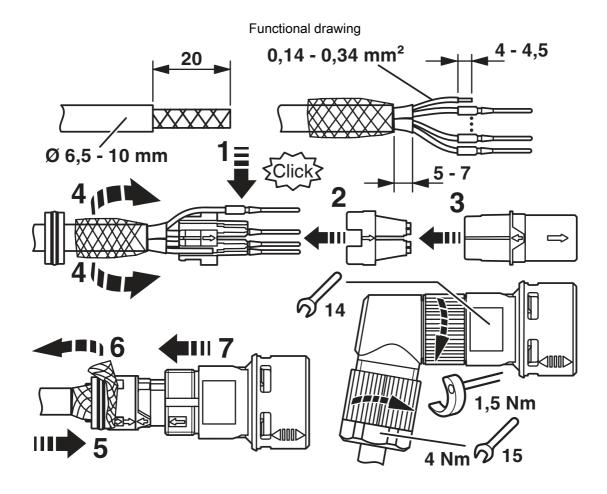


M12 push-pull plug, angled, shielded



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## **Approvals**

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#### cUL Listed

Approval ID: E335024-20120831



#### **UL Listed**

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**cULus Listed** 



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## Classifications

### **ECLASS**

	ECLASS-11.0	27440102		
	ECLASS-12.0	27440116		
	ECLASS-13.0	27440116		
ETIM				
LTIW				
	ETIM 8.0	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  $\text{mm}^2$  ... 0.34  $\text{mm}^2$ , AWG 26 ... 22

### Accessories

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

1423643

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## 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

### 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



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#### 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

### 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  $\text{mm}^2$  to 5 x 2.5  $\text{mm}^2$ , single line stripping 0.2  $\text{mm}^2$  - 4  $\text{mm}^2$  , with longitudinal cut blade and sliding knife



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### 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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