

1422844

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Data connector, Ethernet CAT6_A (10 Gbps), PROFINET CAT6_A (10 Gbps), 8-position, shielded, Plug straight M12, coding: X, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

Your advantages

- Extremely compact, thanks to the small wiring space and high contact density
- Safe use in the field, thanks to a high degree of protection
- 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	1422844
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF34
Product key	BF2CJJ
Catalog page	Page 27 (C-2-2019)
GTIN	4055626381886
Weight per piece (including packing)	22.6 g
Weight per piece (excluding packing)	22.2 g
Customs tariff number	85366990
Country of origin	DE

SACC-M12MSX-8CT-CL SH - Data connector



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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	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 note	Contacts can be clipped in place and unclipped without tools
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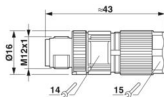
Product properties

Product type	Circular connector (cable-side)
Application	Data
Sensor type	Ethernet
Number of positions	8
No. of cable outlets	1
Shielded	yes
Coding	X
Cable outlet	straight

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Dimensions

Dimensional drawing	
Length	43 mm
Wrench size, union nut	15 mm
Wrench size, counter nut	14 mm

External dimensions

Outside diameter	6.5 mm ... 10 mm
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Housing

Diameter housing	16 mm
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Material specifications

Flammability rating according to UL 94	V0
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Seal material	FKM
Material of grip body	Zinc die-cast, nickel-plated
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, tin-plated
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 ² ... 0.34 mm ² (flexible)
Connection cross section AWG	26 ... 22 (flexible)
Stripping length of the individual wire	4 mm +0,5 mm
Tightening torque	0.4 Nm (M12 knurl) 4 Nm (Pressure nut with coupling sleeve)

Pin assignment

Contact Color (signal designation) Contact (optional)	1 = WHOG (D1+) 2 = OG (D1-) 3 = WHGN (D2+) 4 = GN (D2-) 5 = WHBN (D4+) 6 = BN (D4-) 7 = WHBU (D3-) 8 = BU (D3+)
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Electrical properties

Rated surge voltage	0.8 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC 60 V DC
Nominal current I _N	0.5 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Connector

Connection 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	X

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Cable/line

Signal type/category	Ethernet CAT6 _A (IEC 11801), 10 Gbps
	PROFINET CAT6 _A (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
Ambient temperature (operation)	-40 °C ... 85 °C (Plug / socket)
Ambient temperature (assembly)	-5 °C ... 50 °C

Standards and regulations

Testing

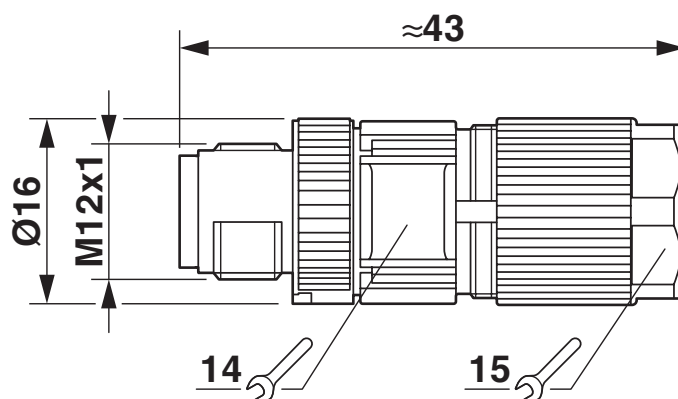
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
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M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-109
Standard designation	Shock, vibration
Standards/specifications	EN 50155:2001

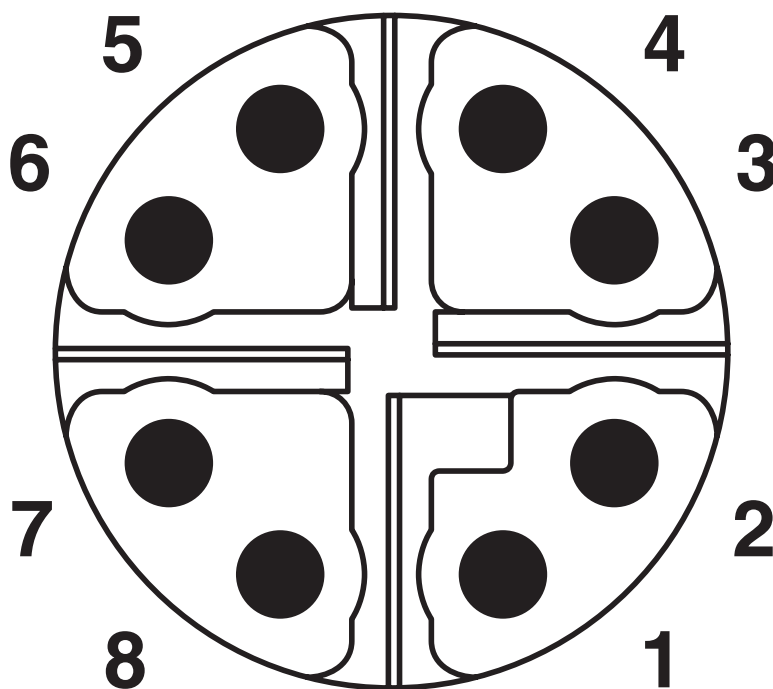
Drawings

Dimensional drawing



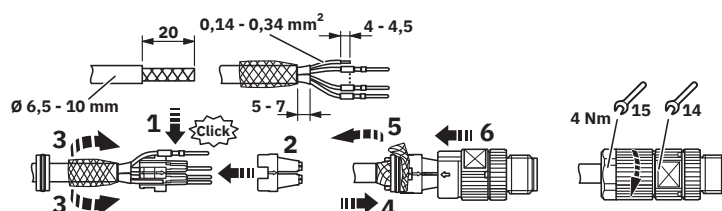
Plug, M12 x 1, straight, shielded

Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

Functional drawing



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Approvals

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EAC
Approval ID: RU C-DE.BL08.B.00511



UL Listed
Approval ID: E335024-20120831



cUL Listed
Approval ID: E335024-20120831

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	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
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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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 mm² ... 0.34 mm², 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, PE-X halogen-free, black, 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 mm², 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

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Stripping tool, for stripping installation lines of $\varnothing$ 8 - 13 mm , e.g. NYM 3 x 1.5 mm² to 5 x 2.5 mm², single line stripping 0.2 mm² - 4 mm² , 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 $\varnothing$ of 4.4 to 7 mm, any stripping length

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TSD 04 SAC - Torque screwdriver

1208429

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Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

SAC BIT M12-D16 - Tool

1200305

<https://www.phoenixcontact.com/us/products/1200305>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, knurl diameter: 16 mm, for 4 mm hexagonal drive

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TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/us/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/us/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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