SACC-M12MS-5PL M DN - Data connector

1012966

https://www.phoenixcontact.com/us/products/1012966

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Data connector, CANopen®, DeviceNet™, 5-position, unshielded, Plug straight M12, coding: A, 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

Commercial data

Item number	1012966
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF33
Product key	BF2CEA
GTIN	4055626959276
Weight per piece (including packing)	21.1 g
Weight per piece (excluding packing)	21.7 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

Assembly note	**NOTE:** 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.

Mounting

Assembly note	The wires can be connected both with ferrules and without ferrules

Product properties

Product type	Circular connector (cable-side)
Application	Data
Sensor type	CANopen®
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A
Cable outlet	straight

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Dimensions
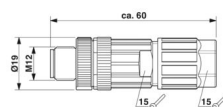
Dimensional drawing	
Length	60 mm

External dimensions

Outside diameter	4 mm ... 8 mm

Housing

Diameter housing	19 mm

Material specifications

Material	PBT (Pressure nut, weight: 2.36 g)
	PA 6 (Actuation lever)
Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	PA 6.6

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, 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)
	PBT: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL2, R26: HL3)

Connection data

Conductor connection

Connection method	Push-lock spring connection
Connection cross section	0.14 mm² ... 0.75 mm² (without ferrule)
	0.08 mm² ... 0.5 mm² (with ferrule)
	0.14 mm² ... 0.75 mm² (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)
	0.4 Nm (Connector with coupling sleeve)
	1.5 Nm (Pressure nut with coupling sleeve)

Pin assignment

Contact | Color (signal designation) | Contact (optional)	1 = GY (shield)
	2 = RD
	3 = BK
	4 = WH
	5 = BU

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A (2 A when using 0.14 mm² conductors)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Connector

Connection 1

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

Cable/line

Signal type/category	CANopen®
	DeviceNet™
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, 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)
	PBT: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL2, R26: HL3)
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Standard designation	Shock, vibration
Standards/specifications	EN 50155:2001

Drawings

Dimensional drawing

ca. 60

Ø19 · M12

15 · 15
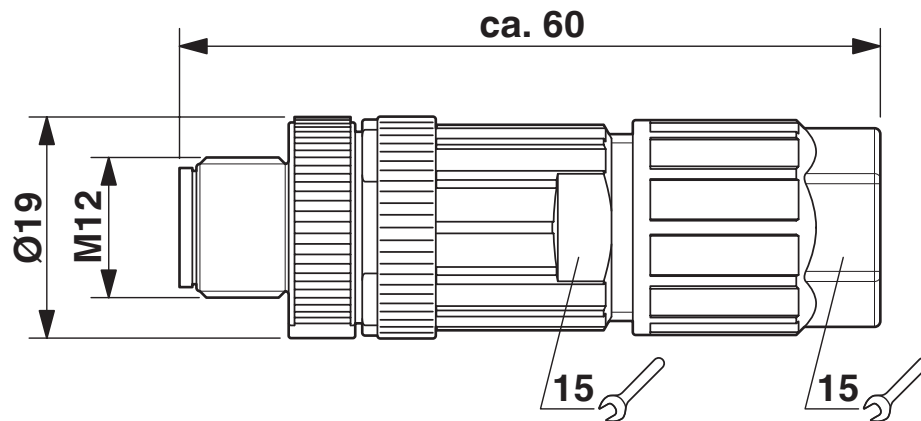
Plug, M12 x 1, straight

Functional drawing

Ø 4 - 8 mm

24

7

0,14 - 0,75 mm²
AWG 26 - 18

0   10   20
7   24

15   0,4 Nm   1208429
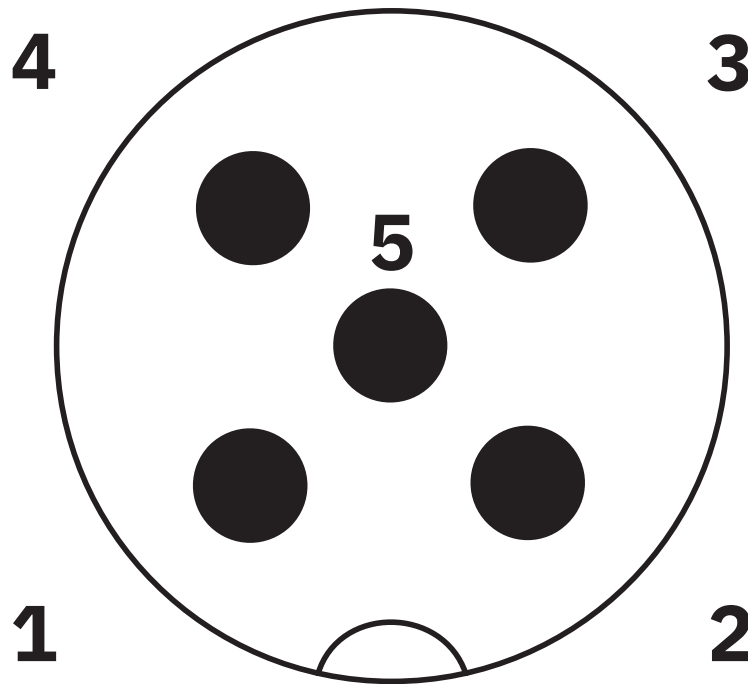1208445

15   15   1,5 Nm

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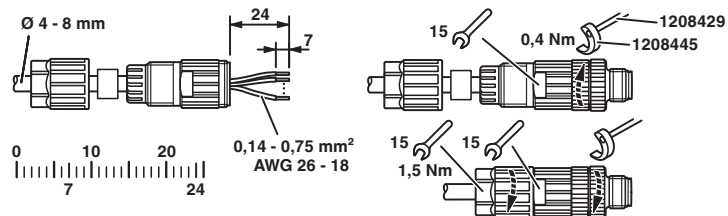
Schematic diagram

Pin assignment M12 male connector, 5-pos., A-coded, male side

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1012966

UL Listed
Approval ID: E221474

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	4 A	-	26 - 18

cUL Listed
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	250 V	4 A	26 - 18	-

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

UNSPSC

UNSPSC 21.0	39121400

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%