

1421680

<https://www.phoenixcontact.com/us/products/1421680>

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Data connector, Ethernet CAT5 (1 Gbps), 8-position, halogen-free, shielded, Socket straight M12, coding: A, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

Your advantages

- Safe use in the field, thanks to a high degree of protection
- Insulation displacement connection: innovative and time-saving assembly without stripping the single wire
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Commercial data

Item number	1421680
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF31
Product key	BF2CDI
Catalog page	Page 343 (C-2-2019)
GTIN	4055626276823
Weight per piece (including packing)	45.1 g
Weight per piece (excluding packing)	45.1 g
Customs tariff number	85366990
Country of origin	DE

SACC-M12FS-8QO SH ETH - Data connector



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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.

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	A
Cable outlet	straight

Data management status

Article revision	06
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Dimensions

Dimensional drawing	
Length	57 mm
Wrench size, union nut	15 mm

External dimensions

Outside diameter	5 mm ... 9.7 mm
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Housing

Diameter housing	19 mm
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Material specifications

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

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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)
Wire insulation material	PVC / PE / PP / rubber

Connection data

Conductor connection

Connection method	Insulation displacement connection
Connection cross section	0.14 mm ² ... 0.34 mm ² (flexible)
	0.14 mm ² ... 0.34 mm ² (solid)
Connection cross section AWG	26 ... 22 (flexible)
	26 ... 22 (solid)
Tightening torque	5 Nm (Pressure nut)

Pin assignment

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

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	2 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Connector

Connection 1

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

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Cable/line

Signal type/category	Ethernet CAT5 (based on IEC 11801), 1 Gbps
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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	according to IEC 61076-2-101

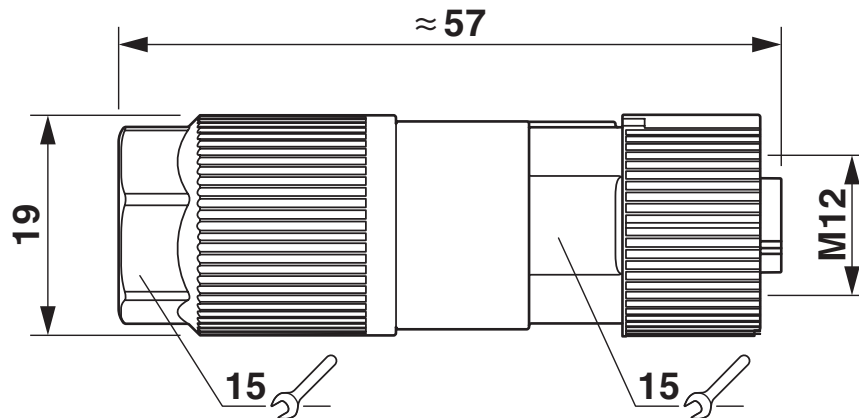
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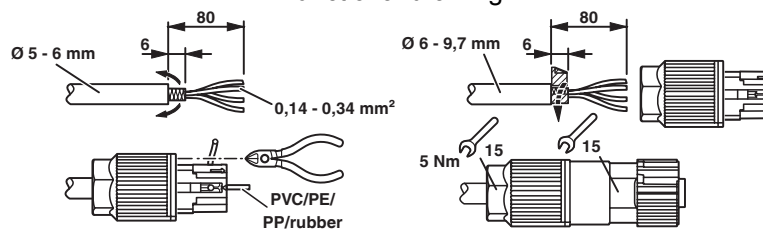
Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded

Functional drawing

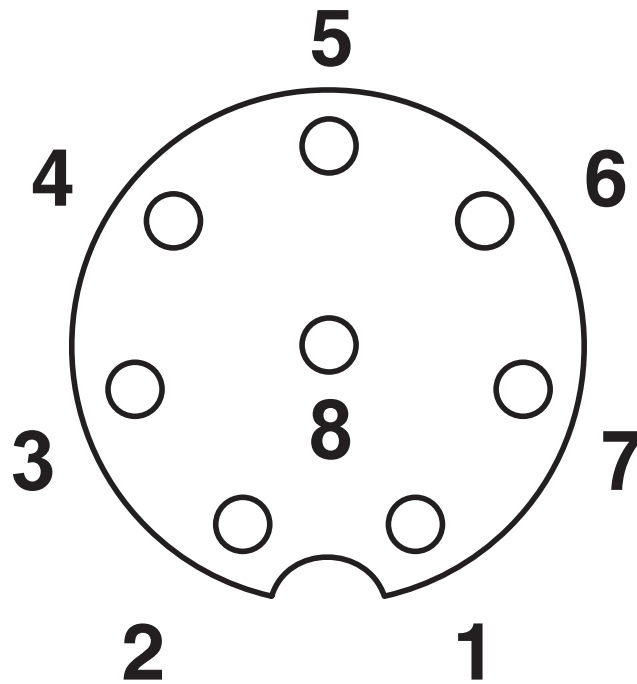


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Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

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Approvals

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EAC

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

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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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