SACC-DSI-FSY-8CON-M16/0,5 SCO - Device connector rear mounting

1407618

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M12 panel feed-through, rear mounting

Device connector rear mounting, Ethernet hybrid CAT5 (IEC 11801:2002) (100 Mbps), 8-position, Socket, straight, M12-SPEEDCON, Y-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.14 mm^2, TPE litz wire, potted, this item is expected to be lead-free from Q3 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

Your advantages

- Preassembled with litz wires for immediate use
- Customer-specific assemblies and litz wire lengths available
- All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1407618
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCGG
GTIN	4046356807913
Weight per piece (including packing)	39 g
Weight per piece (excluding packing)	36.698 g
Customs tariff number	85444290
Country of origin	DE

Technical data

Notes

Notes on operation	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
Order information:	Lock nut is included in the scope of delivery
General	Contact connection method: Crimp connection

Safety note

Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	• The products are suitable for applications in plant, controller, and electrical device engineering.
	• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	• Assembled products may not be manipulated or improperly opened.
	• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
	• When using the product in direct connection with third-party manufacturers, the user is responsible.
	• For operating voltages > 50 V AC, conductive connector housings must be grounded
	• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	• Observe the corresponding technical data. You will find information: o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
	• Only use tools recommended by Phoenix Contact
	• Use a protective cap to protect connectors that are not in use.

	The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products
	• Ensure that the protective or functional ground has been properly connected.
	• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

Mounting

Mounting type	Rear mounting (M16 x 1,5)
Tightening torque	3 Nm ... 4 Nm (Installation-side)

Product properties

Product type	Circular connectors (device side)
Application	Data
	Signal
Number of positions	8
No. of cable outlets	1
No. of power contacts	4
No. of control contacts	4
Shielded	no
Coding	Y
Thread type	M12

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Material specifications

Material Housing	GD-Zn
Material Housing surface	Ni
Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Material grommet GRP	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PPA
Conductor material	Tin-plated Cu litz wires

Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ

Insulation resistance	> 100 MΩ
Nominal voltage U_N	48 V AC (Power and data)
	50 V DC (Power and data)
Nominal current I_N	0.5 A (Data)
	6 A (Power)
Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Max. conductor resistance	142 mΩ/m

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Socket
Conductor cross-section	0.14 mm² (Signal line)
Tightening torque	3 Nm ... 4 Nm (Installation-side)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Interfaces

Signal type/category	Ethernet hybrid CAT5 (IEC 11801:2002), 100 Mbps

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	Y

Connection 2

Head design	free cable end

Cable/line

Cable length	0.5 m
Cable type	TPE litz wire
Single wire, color	Signal: orange/white, orange, green/white, green Power: blue, white, brown, black
Cable cross section	0.14 mm² (Signal line)
	0.5 mm² (Power supply)

Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	1.10 mm
AWG signal line	26
Conductor structure, voltage supply	1.50 mm
AWG power supply	20
Material wire insulation	TPE
Thickness, insulation	0.25 mm
Nominal voltage, cable	300 V
Test voltage, cable	3000 V AC
Cable resistance	≤ 142 mΩ/m
	≤ 40.1 mΩ/m
Cable insulation resistance	≥ 20 MΩ*km
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-30 °C ... 90 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

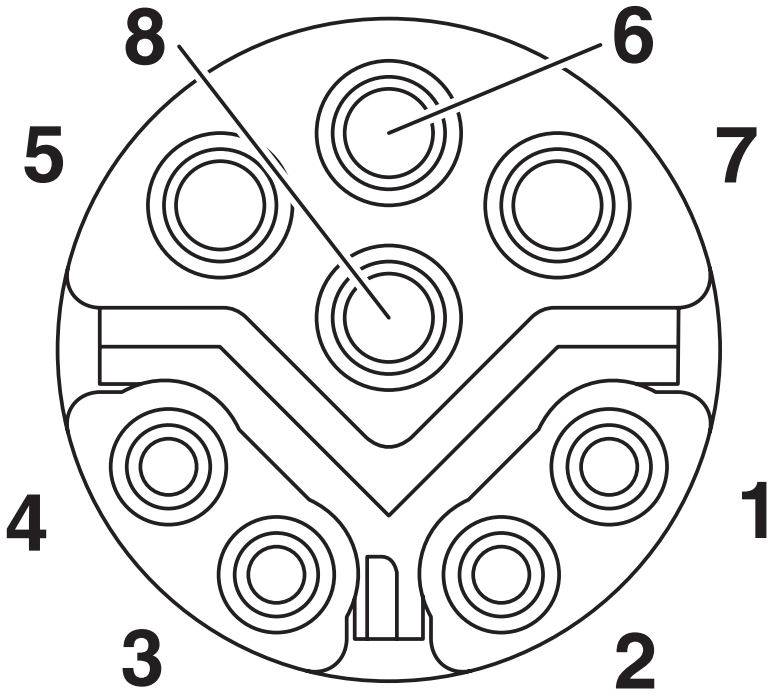
Degree of protection	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C
	-40 °C ... 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-30 °C ... 90 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 105 °C (cable, fixed installation)
UL Type Rating	Type 4 (indoor use only)

Standards and regulations

Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-101

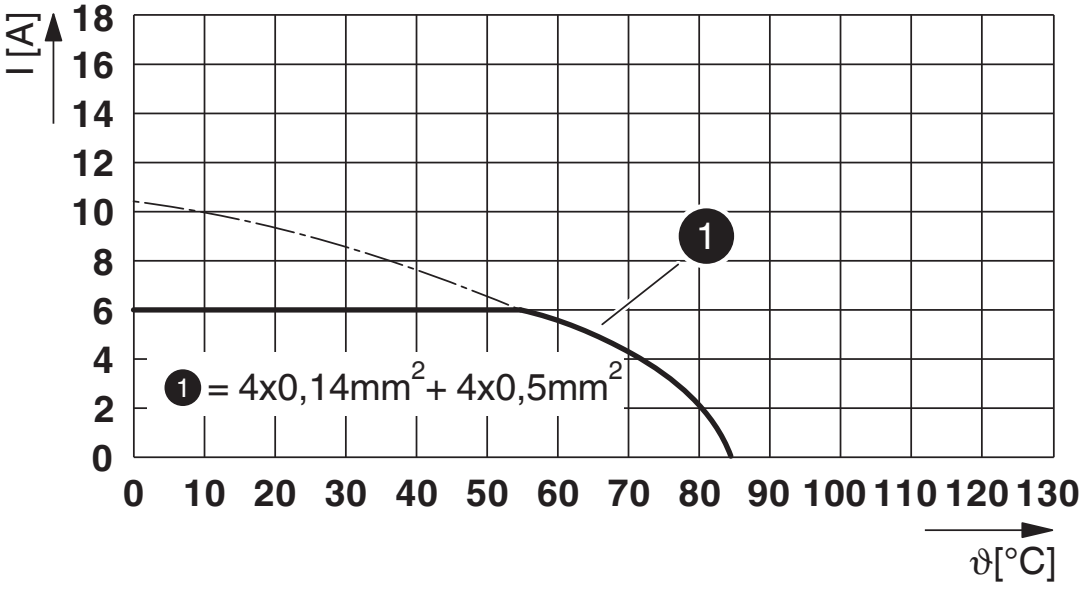
Drawings

Schematic diagram



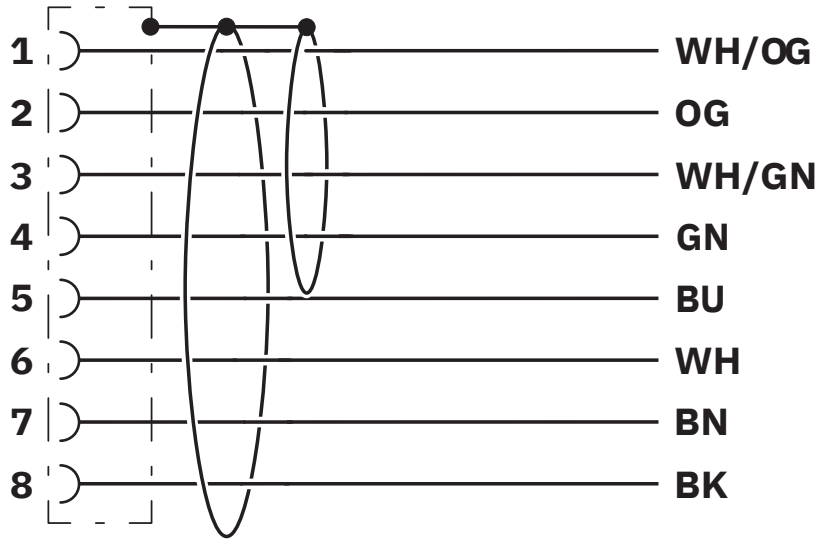
Pin assignment of socket, 8-pos., Y-coded, socket side view

Diagram



I = current strength, T = ambient temperature

Circuit diagram



Contact assignment of the M12 connector

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1407618

cUL Recognized
Approval ID: E335024-20120308

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Power	56 V	0.175 A	-	-
Data	30 V	0.5 A	-	-

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	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Power	56 V	0.175 A	-	-
Data	30 V	0.5 A	-	-

Classifications

ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27440103

ETIM

ETIM 10.0	EC003570

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	c67f829a-0a17-4e1c-8b5f-355c33156185

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