SACC-E-M12FSD-4P-M16XL/0,5 - Device connector front mounting

1411569

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The figure shows the 4-pos., A-coded version

Device connector front mounting, PROFINET CAT5 (IEC 11801:2002), 4-position, Socket, straight, M12-Standard, D-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.34 mm^2, TPE litz wire, potted

Your advantages

- Easy-to-install, optimized XL housing contour with wrench size 19
- Mechanical tightening limitation for long-term-stable gasket
- Preassembled with litz wires for immediate use
- Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- 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	1411569
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCFB
GTIN	4046356936088
Weight per piece (including packing)	32.5 g
Weight per piece (excluding packing)	22.333 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.
Notes on operation	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	Contact connection method: Crimp connection

Safety note

Safety note	• 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.

Mounting

Mounting type	Front mounting (M16 x 1.5, XL variant, tightening limitation)
Tightening torque	1.5 Nm ... 2 Nm (Installation-side)

Product properties

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

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Material grommet GRP	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6

Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Tin-plated Cu litz wires

Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	250 V (AC)
	250 V (DC)
Nominal current I_N	4 A
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Max. conductor resistance	57.6 Ω/km

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Socket
Conductor cross-section	0.34 mm²
Tightening torque	1.5 Nm ... 2 Nm (Installation-side)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Interfaces

Signal type/category	PROFINET CAT5 (IEC 11801:2002)

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	D

Connection 2

Head design	free cable end

Cable/line

Cable length	0.5 m
Cable type	TPE litz wire

Wire diameter incl. insulation	1.2 mm ±0.07 mm
Single wire, color	yellow, orange, white, blue
Cable cross section	0.34 mm²
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Material wire insulation	TPE
Thickness, insulation	0.21 mm (Core insulation)
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Cable resistance	≤ 57.6 Ω/km
Cable insulation resistance	≥ 20 MΩ*km
Ambient temperature (operation)	-40 °C ... 85 °C (cable, fixed installation)
	-25 °C ... 85 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

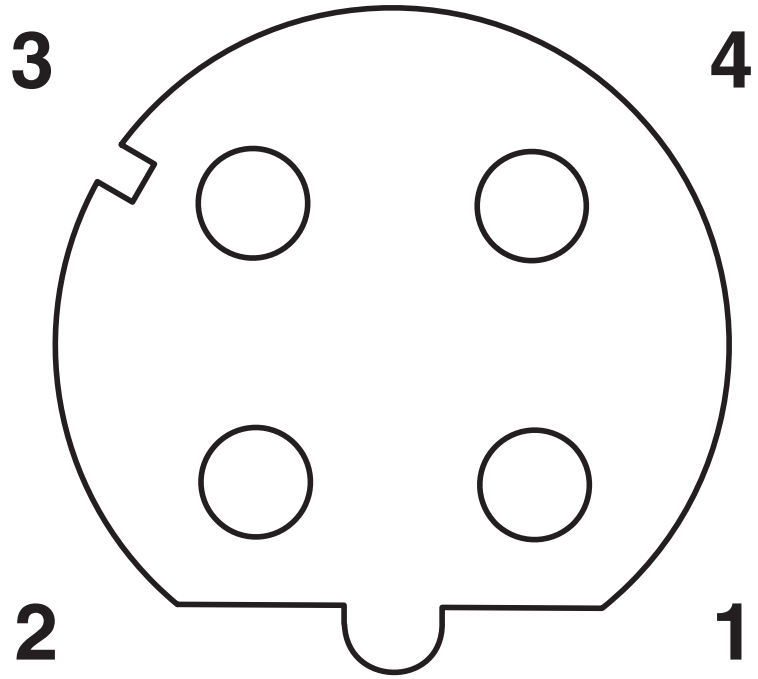
Degree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C ... 85 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 85 °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

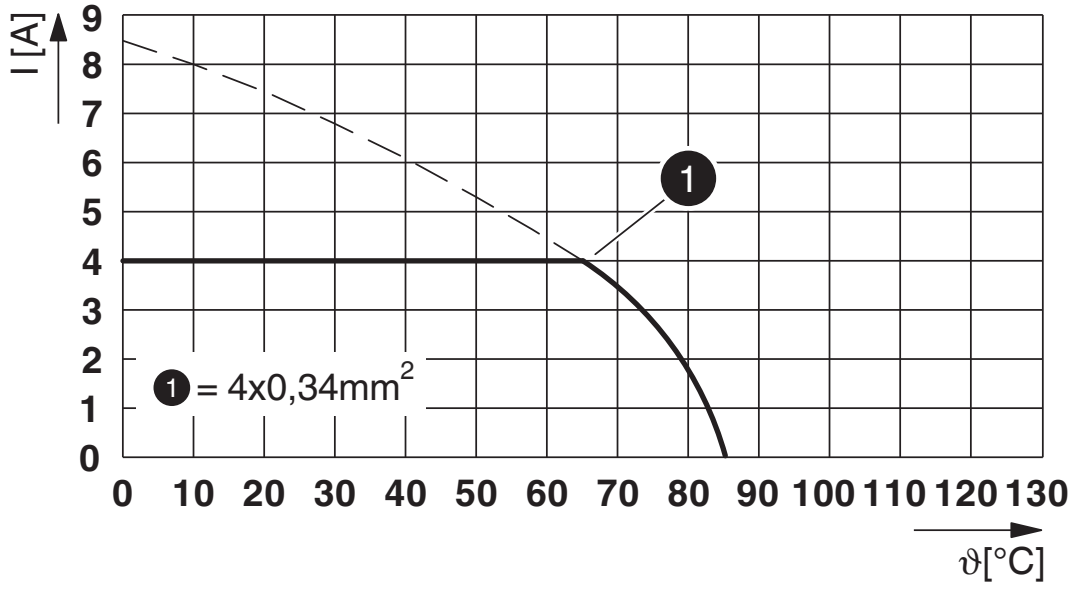
Drawings

Schematic diagram



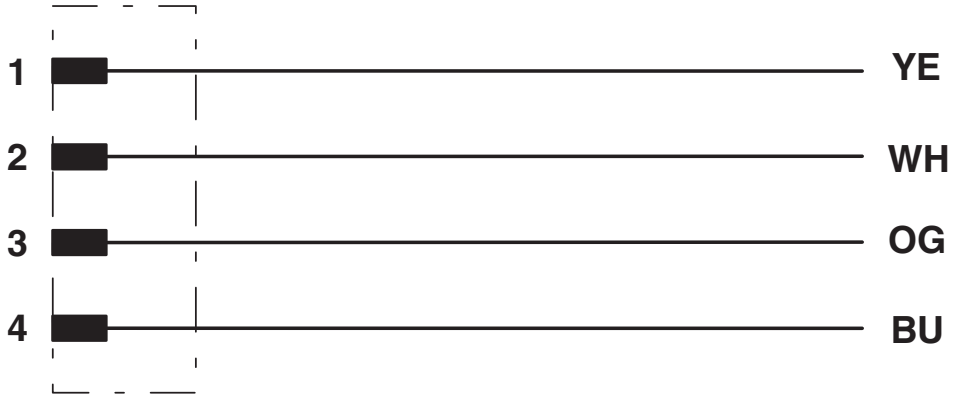
Pin assignment M12 socket, 4-pos., D-coded, female side

Diagram



I = current strength, T = ambient temperature

Circuit diagram



Contact assignment of the M12 socket

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411569

cULus Recognized
Approval ID: E221474-20140616

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	250 V	4 A	22 - 20	-

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, 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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