SACC-E-M12FST-4CON-M16/0,5 - Device connector front mounting

1424138

https://www.phoenixcontact.com/us/products/1424138

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Device connector front mounting, Power, 4-position, Socket, straight, M12-Standard, T-coding, on free cable end, Individual wires, cable length: 0.5 m, 1.31 mm^2, UL/cUL stranded hook-up wire, potted, this item is expected to be lead-free from Q2 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

Your advantages

- For compact devices: transmit high power in a confined space
- 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
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1424138
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCFG
GTIN	4046356693400
Weight per piece (including packing)	54 g
Weight per piece (excluding packing)	42.155 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.
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	Front mounting (M16 x 1,5)
Tightening torque	M12 connector

Product properties

Product type	Circular connectors (device side)
Application	Power
Sensor type	Power
Number of positions	4
No. of cable outlets	1
No. of power contacts	4
Shielded	no
Coding	T
Thread type	M12

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Material specifications

Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material for screw connection	CuZn alloy, nickel-plated
Conductor material	Tin-plated Cu litz wires

Electrical properties

Rated surge voltage	1.5 kV
Rated surge voltage	1.5 kV AC/DC
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ

Nominal voltage U_N	63 V DC
	63 V DC
Nominal current I_N	12 A
Test voltage	1.5 kV
	2000 V AC

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Socket
Conductor cross-section	1.31 mm²
Tightening torque	M12 connector

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Connector

Connection 1

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

Connection 2

Head design	free cable end

Cable/line

Cable length	0.5 m
Cable type	UL/cUL stranded hook-up wire
Signal type/category	Power
Wire diameter incl. insulation	2 mm
Single wire, color	black, brown, blue, white
Cable cross section	1.31 mm²
Conductor material	Tin-plated Cu litz wires
AWG signal line	16
Material wire insulation	mPPE
Thickness, insulation	0.21 mm (Core insulation)
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Halogen-free	yes

Flame resistance	in acc. to UL 1581 VW1
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-25 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

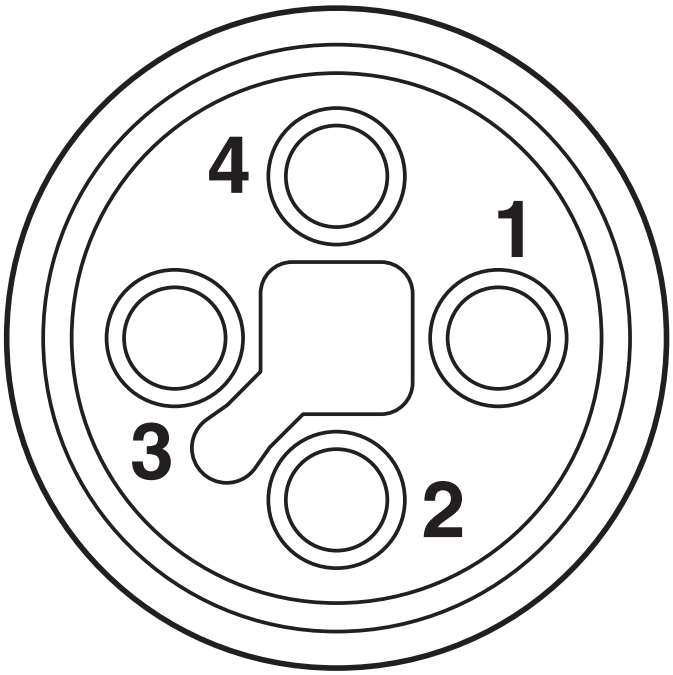
Degree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C ... 105 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 105 °C (cable, fixed installation)
UL Type Rating	Type 4 (indoor use only)

Standards and regulations

Flame resistance	in acc. to UL 1581 VW1
Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-111

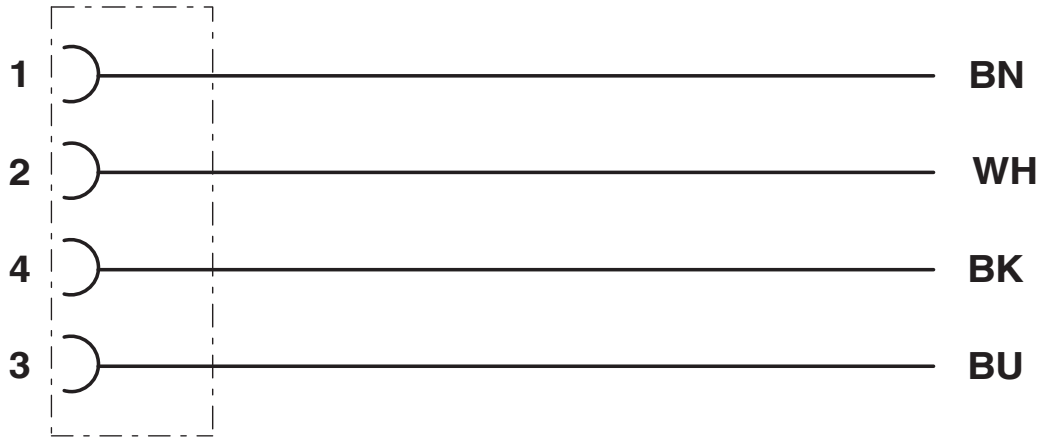
Drawings

Schematic diagram



Pin assignment of M12 socket, 4-pos., T-coded, socket side view

Circuit diagram



Contact assignment of the M12 socket

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1424138

cUL Recognized
Approval ID: E468743-20190917

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	63 V	12 A	16	-

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	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
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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	4e22b287-fa43-45c9-b720-1cb4ef99159d

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