SACC-DSI-M12FSS-4CON-M16/1,0PE - Device connector rear mounting

1178143

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Device connector rear mounting, Power, 4-position, Socket, straight, M12, S-coding, on free cable end, Individual wires, cable length: 1 m, 1.31 mm^2, UL/cUL stranded hook-up 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

- For compact devices: transmit high power in a confined space
- Protection against mismatching thanks to S-coding
- 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	1178143
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCHG
GTIN	4063151212919
Weight per piece (including packing)	88.1 g
Weight per piece (excluding packing)	76.333 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.
Order information:	Lock nut is included in the scope of delivery
General	Contact connection method: Crimp connection

Mounting

Mounting type	Rear mounting (M16 x 1.5, with flat nut)
Tightening torque	3 Nm ... 4 Nm (M12 connector)

Product properties

Product type	Circular connectors (device side)
Application	Power
Number of positions	4
Connection profile	3+PE
No. of cable outlets	1
No. of power contacts	3
Shielded	no
Coding	S
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	Bare Cu litz wires

Electrical properties

Rated voltage in acc. with IEC 61076-2-101	630 V
Rated surge voltage	6 kV

Rated surge voltage	6 kV AC
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	630 V
Nominal current I_N	12 A
Test voltage	6 kV

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Socket
Conductor cross-section	1.31 mm²
Tightening torque	3 Nm ... 4 Nm (M12 connector)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Interfaces

Signal type/category	Power

Connector

Connection 1

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

Connection 2

Head design	free cable end

Cable/line

Cable length	1 m
Cable type	UL/cUL stranded hook-up wire
Wire diameter incl. insulation	2.2 mm
Single wire, color	black 1, black 2, black 3, green/yellow
Cable cross section	1.31 mm²
Conductor material	Bare Cu litz wires
AWG signal line	16
Material wire insulation	mPPE
Halogen-free	yes
Flame resistance	in acc. to UL 1581 VW1
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)

	-20 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

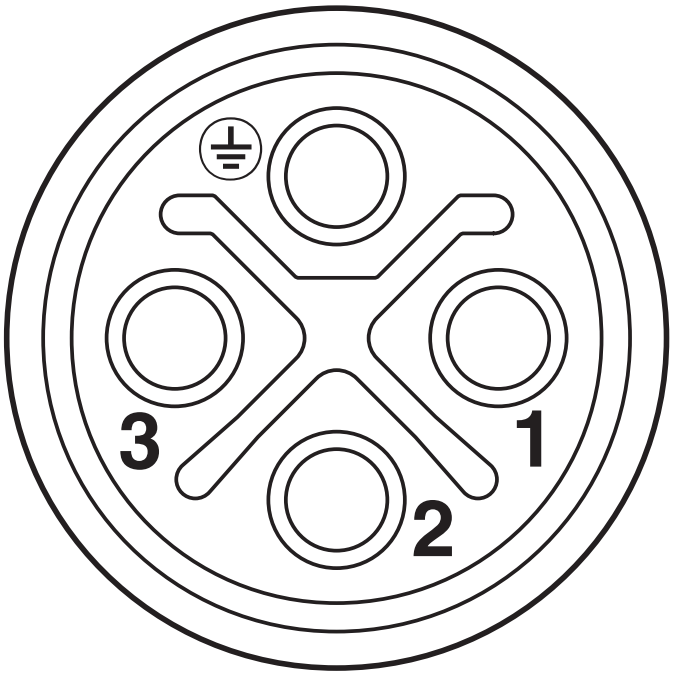
Degree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
Ambient temperature (operation) (Cable, flexible installation)	-20 °C ... 105 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-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

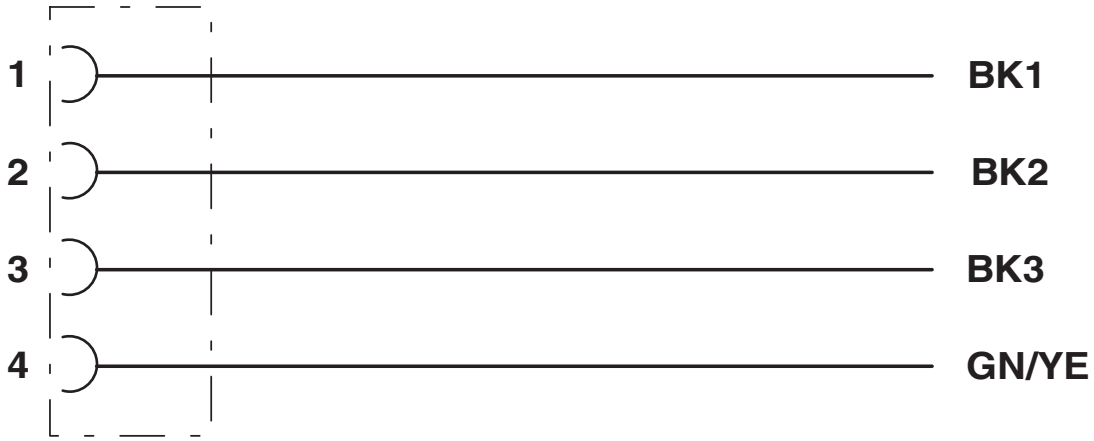
Drawings

Schematic diagram



Pin assignment of M12 socket, 4-pos., S-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/1178143

cUL Recognized
Approval ID: E468743-20190917

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

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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	193d1021-82d4-4c96-8e39-e500913fc70f

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