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Contact carrier, 8-position, Pin, straight, M12, A-coding, on free cable end, Individual wires, cable length: 0.5 m, 0.25 mm<sup>2</sup>, TPE litz wire, this item is expected to be lead-free from Q4 2025 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

## Your advantages

- Convenient field assembly: device connectors for fast on-site mounting
- Contact carriers that are designed for assembly or available with preassembled litz wires
- Customer-specific assemblies and litz wire lengths available
- Standard pin assignments for signal and power transmission with a uniform design-in design

## Commercial data

Item number	1457827
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCED
GTIN	4046356623773
Weight per piece (including packing)	16.8 g
Weight per piece (excluding packing)	14.873 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.
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### Product properties

Product type	Contact insert
Application	Signal
Number of positions	8
No. of cable outlets	1
Shielded	no
Coding	A
Thread type	M12

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Electrical properties

Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	2 A
Transmission medium	Copper
Max. conductor resistance	57.6 m $\Omega$ /m

### Connection data

Connection method	Individual wires
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### Signaling

Status display	no
Status display present	no

### Material specifications

Material Contact carrier	PA 6.6
Material Contact	CuZn
Material Contact surface	Au
Flammability rating according to UL 94	V0
Conductor material	Tin-plated Cu litz wires

# SACC-MCI-M12MS-8CON/0,5 - Contact carrier

1457827

<https://www.phoenixcontact.com/us/products/1457827>



## Connector

### Connection 1

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

### Connection 2

Head design	free cable end
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## Cable/line

Cable length	0.5 m
Cable type	TPE litz wire
Wire diameter incl. insulation	1.2 mm $\pm 0.07$ mm
Cable cross section	0.25 mm <sup>2</sup>
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	3000 V AC
Cable resistance	$\leq 57.6$ m $\Omega$ /m
Cable insulation resistance	$\geq 20$ M $\Omega$ *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	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
Ambient temperature (operation) (fixed installation)	-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

## Mounting

Mounting type	Front/square flange mounting (25 mm side length)
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# SACC-MCI-M12MS-8CON/0,5 - Contact carrier

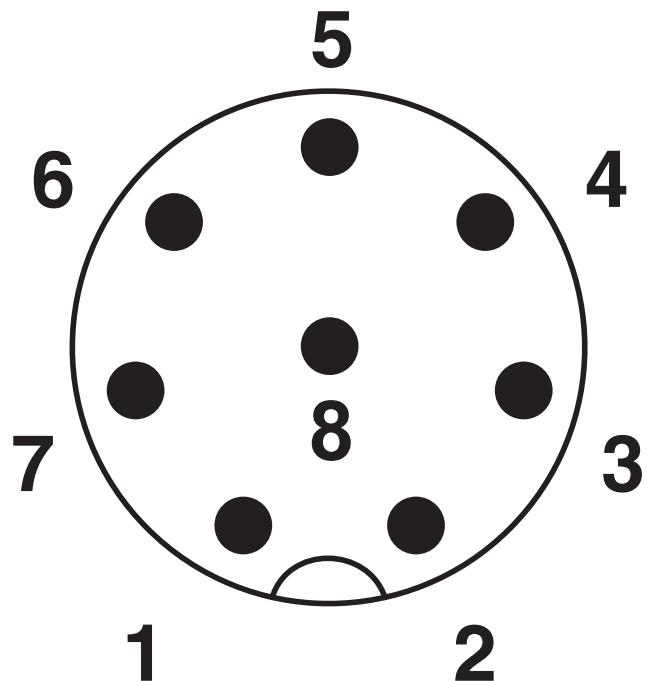
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<https://www.phoenixcontact.com/us/products/1457827>



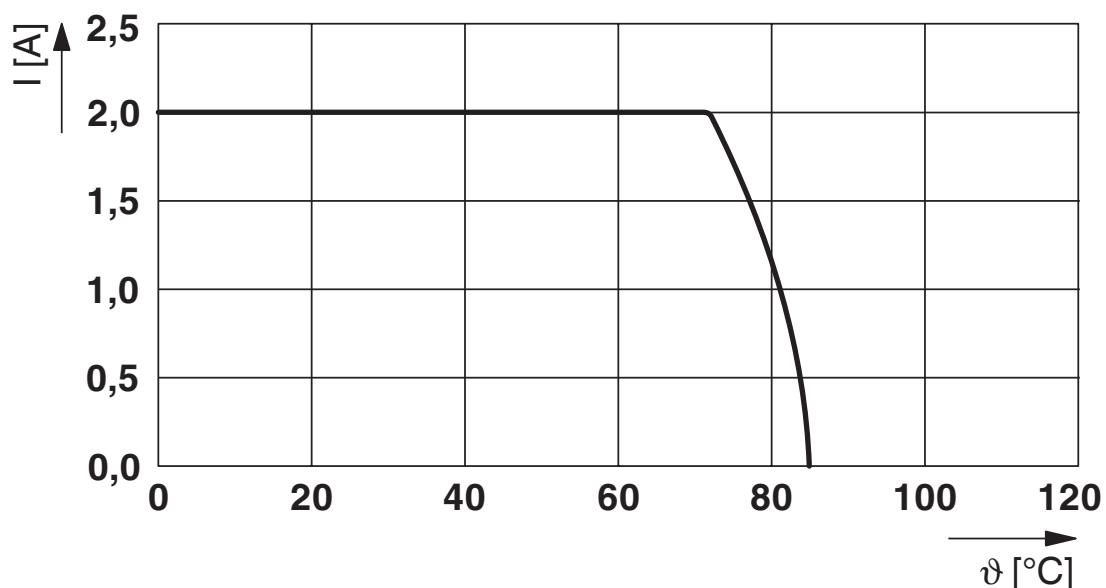
## Drawings

Schematic diagram



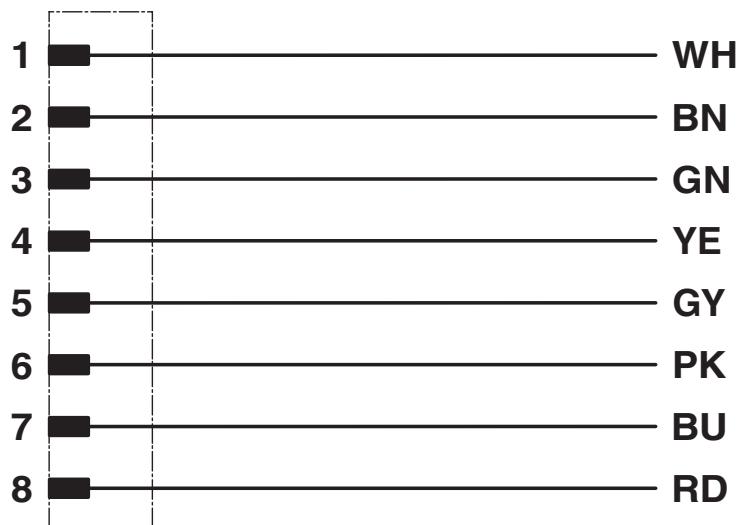
Pin assignment M12 plug, 8-pos., view plug side

Diagram



I = current strength, T = ambient temperature

Circuit diagram



Contact assignment of the M12 plug

## Classifications

### ECLASS

ECLASS-13.0	27440223
ECLASS-15.0	27440223

### ETIM

ETIM 9.0	EC003557
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### UNSPSC

UNSPSC 21.0	39121400
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## 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	3e5feef2-bf93-415b-8bc2-bcf1c39e6d6d

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