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Contact carrier, 8-position, Socket, straight, M12, A-coding, THR solder connection, 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

- Reduced mounting costs thanks to two-piece device connector
- Packaging available for automated pick and place assembly
- All common pin assignments and codings available
- Easy device integration thanks to mechanical port screw connections with threaded attachment, press-in contour or direct integration in the front plate
- Additional gasket for the device when not plugged in

## Commercial data

Item number	1457681
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	AB23
Product key	ABQAGH
GTIN	4046356617437
Weight per piece (including packing)	7.28 g
Weight per piece (excluding packing)	2.975 g
Customs tariff number	85366990
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
Seal present	yes
Shielded	yes
Coding	A
Thread type	M12

### Insulation characteristics

Degree of pollution	3
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### Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	30 V
Nominal current $I_N$	2 A

### Connection data

Connection method	THR solder connection
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### Material specifications

Material Contact carrier	PPA
Material Contact	CuZn
Material Contact surface	Au
Material Seal	FKM
Flammability rating according to UL 94	V0

### Connector

#### Connection 1

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

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	> 100
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP67 (correctly plugged in and locked)
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)

## Standards and regulations

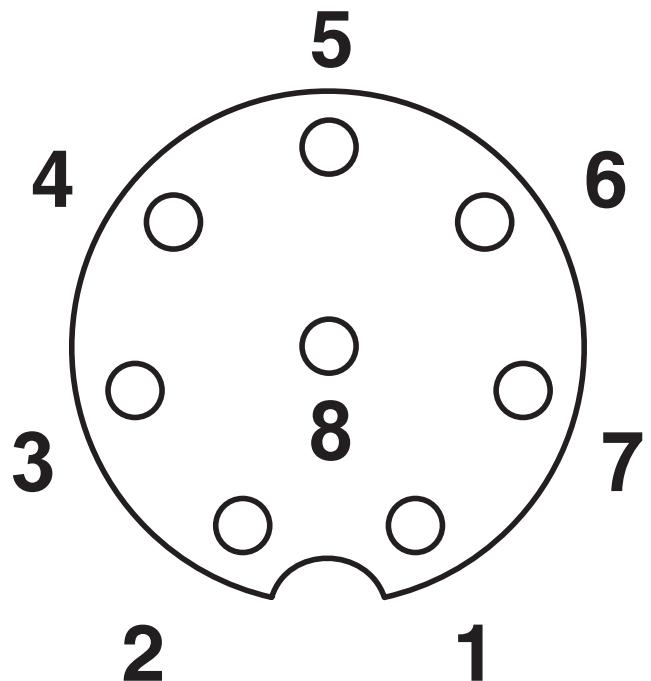
Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-101

## Packaging specifications

Type of packaging	Belt
Delivery state	with assembly pad

## Drawings

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1457681>

 <b>UL Recognized</b> Approval ID: E118976-20100522				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	30 V	2 A	24	-

 <b>cULus Recognized</b> Approval ID: E221474-20140616				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	30 V	2 A	-	-

## 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	fb7a3d99-21ac-4eca-86f1-3d00a836f03f

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