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Contact carrier, Ethernet/PROFINET CAT5 (100 Mbps), 4-position, Socket, straight, M12, D-coding, SMD reflow, this item is expected to be lead-free from Q1 2027 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	1412005
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	AB23
Product key	ABQBGH
GTIN	4046356992787
Weight per piece (including packing)	5.3 g
Weight per piece (excluding packing)	2.3 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	Data
Sensor type	Signal
Number of positions	Ethernet/PROFINET
Seal present	4
Shielded	yes
Coding	yes
Thread type	D
	M12

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	250 V
	250 V DC
Nominal current I_N	4 A
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Connection data

Connection method	SMD reflow
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Interfaces

Signal type/category	Ethernet/PROFINET CAT5, 100 Mbps
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Material specifications

Material Insulating body	PA
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	D

Cable/line

Signal type/category	Ethernet/PROFINET CAT5, 100 Mbps
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Mechanical properties

Mechanical data

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

Ambient conditions

Degree of protection (when plugged in)	IP67 (correctly plugged in and locked)
Degree of protection	IP67 (correctly plugged in and locked)
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 105 °C (Plug / socket) -40 °C ... 105 °C (without mechanical actuation)
UL Type Rating	Type 4 (indoor use only)

Standards and regulations

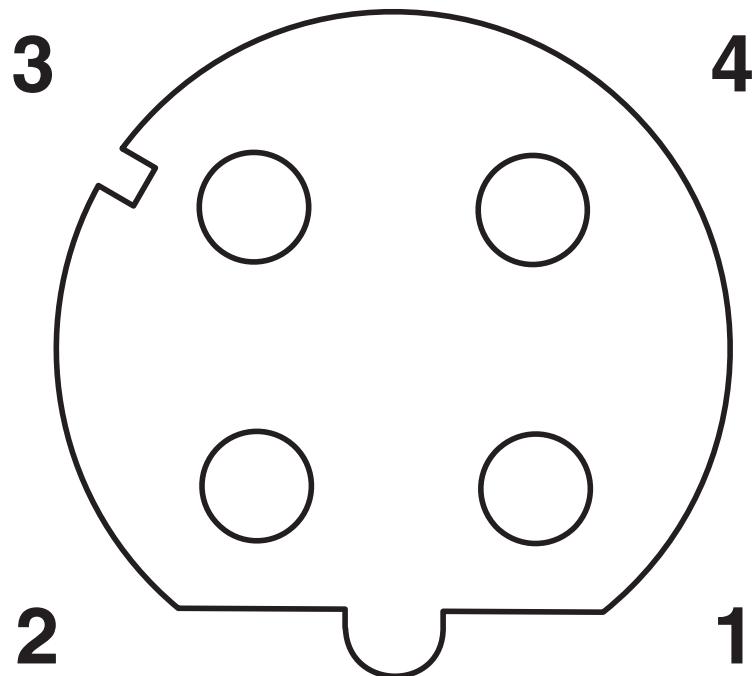
Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-101

Packaging specifications

Type of packaging	Belt
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Drawings

Schematic diagram



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

Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1412005>

cULus Recognized				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	250 V	4 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	4dd65159-acc2-4508-b0e2-d6150579e9e4

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