

1401205

https://www.phoenixcontact.com/us/products/1401205

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Device connector front mounting, Universal, 8-position, Socket, straight, M12-Standard, Acoding, on free cable end, Individual wires, cable length: 1 m, 0.25 mm², TPE litz wire, potted, 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

- · 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
- · All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1401205
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCUE
GTIN	4046356538237
Weight per piece (including packing)	40.4 g
Weight per piece (excluding packing)	38.093 g
Customs tariff number	85444290
Country of origin	DE



1401205

https://www.phoenixcontact.com/us/products/1401205

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

Mounting

Mounting type	Front mounting (Pg9)
Tightening torque	2 Nm 3 Nm (Installation-side)

Product properties

Product type	Circular connectors (device side)
Application	Signal
Sensor type	Universal
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

Material specifications

Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	NBR
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 66
Material for screw connection	Stainless steel
Conductor material	Tin-plated Cu litz wires

Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	30 V (AC)



1401205

https://www.phoenixcontact.com/us/products/1401205

	30 V (DC)
Nominal current I _N	2 A
Max. conductor resistance	80 Ω/km

Connection data

Conductor connection

Connection method	Individual wires
Contact connection type	Socket
Conductor cross-section	0.25 mm²
Tightening torque	2 Nm 3 Nm (Installation-side)

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	A

Connection 2

Head design	free cable end
rioda doolgii	noo cable ona

Cable/line

Cable length	1 m
Cable type	TPE litz wire
Signal type/category	Universal
Wire diameter incl. insulation	1.15 mm ±0.07 mm
Single wire, color	brown, blue, white, gray, pink, green, yellow, red
Cable cross section	0.25 mm²
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	14x 0.15 mm
AWG signal line	24
Material wire insulation	TPE
Thickness, insulation	0.21 mm (Core insulation)
Nominal voltage, cable	300 V
Test voltage, cable	2000 V AC
Cable resistance	≤ 80 Ω/km
Cable insulation resistance	≥ 20 MΩ*km



1401205

https://www.phoenixcontact.com/us/products/1401205

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
	IP65/IP67/IP69K
Ambient temperature (operation) (male connector/female	-25 °C 85 °C (Plug / socket)
connector)	-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

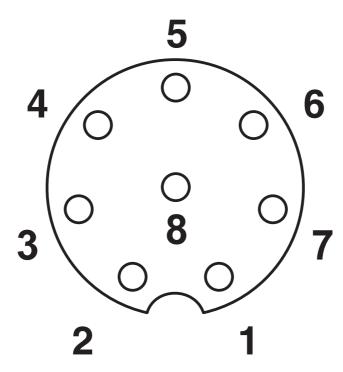


1401205

https://www.phoenixcontact.com/us/products/1401205

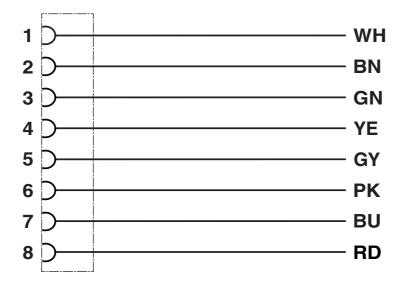
Drawings





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

Circuit diagram



Contact assignment of the M12 plug and the M12 socket



1401205

https://www.phoenixcontact.com/us/products/1401205

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1401205

7.1	UL Recognized 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	-



1401205

https://www.phoenixcontact.com/us/products/1401205

Classifications

ECLASS

	ECLASS-13.0	27440103
	ECLASS-15.0	27440103
ETIM		
	ETIM 9.0	EC003570
U	NSPSC	
	UNSPSC 21.0	39121400



1401205

https://www.phoenixcontact.com/us/products/1401205

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	99015ee4-7399-477f-8c6c-7363f573687e

Phoenix Contact 2025 @ - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com