

1437779

https://www.phoenixcontact.com/us/products/1437779

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Device connector rear mounting, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, PVC, green RAL 6018, shielded, Socket, straight, M12-SPEEDCON, coding: D, on free cable end, Rear mounting, Cable connection, cable length: 1 m, PROFINET PVC stranded CAT5, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239681

Your advantages

- · Preassembled with cables in various standard lengths for immediate use
- · Customer-specific assemblies and cable lengths can be supplied
- · Sealed on the cable side for optimum tightness of seal
- · Cable designs for all common networks and fieldbuses
- · For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1437779
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGJ
Catalog page	Page 397 (C-2-2019)
GTIN	4046356458511
Weight per piece (including packing)	99 g
Weight per piece (excluding packing)	88.2 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

otes	
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
Safety note	
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	 WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	 WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	 The products are suitable for applications in plant, controller, and electrical device engineering.
	 When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	 Assembled products may not be manipulated or improperly opened.
	 Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
	 When using the product in direct connection with third-party manufacturers, the user is responsible.
	 For operating voltages > 50 V AC, conductive connector housings must be grounded
	 Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	Observe the corresponding technical data. You will find information: o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact
	Use a protective cap to protect connectors that are not in use. The state of

The suitable accessories are available online in the accessory



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	section of the product at phoenixcontact.com/products
	 Ensure that the protective or functional ground has been properly connected.
	 VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	 The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).
lounting	
Mounting type	Rear mounting
roduct properties	
Product type	Circular connectors (device side)
Application	Data
	Signal
Sensor type	PROFINET
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	D
Thread type	M12
Data management status	
Article revision	12
Insulation characteristics	
Overvoltage category	II .
Degree of pollution	3
laterial specifications	
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Brass, nickel-plated
Outer sheath, material	PVC
lectrical properties	
Rated surge voltage	2.5 kV
	≤ 3 mΩ
Contact resistance	≥ 2 11172
Contact resistance Insulation resistance	≥ 100 MΩ



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Nominal current I _N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Connection data

Conductor connection

Connection method	Cable connection
Contact connection type	Socket
Tightening torque	2 Nm 3 Nm (Installation-side)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
moor don water awar oy oloo	_ 100

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	D

Connection 2

Head design	free cable end
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Cable/line

Cable length 1 m	
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PROFINET PVC stranded CAT5 [93B]

Dimensional drawing



Cable weight	67 kg/km
UL AWM Style	21694
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]



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Conductor structure	1x4xAWG22/7, SF/TQ
Signal runtime	5.3 ns/m
Signal speed	0.66 c
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.55 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 0.90 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	46 mm
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)
	76 dB (at 4 MHz)
	70 dB (at 10 MHz)
	65 dB (at 16 MHz)
	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)
Shield attenuation	2.1 dB (with 1 MHz)
	4 dB (at 4 MHz)
	6.3 dB (at 10 MHz)
	8 dB (at 16 MHz)
	9 dB (at 20 MHz)
	11.4 dB (at 31.25 MHz)
	16.5 dB (at 62.5 MHz)



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	21.3 dB (at 100 MHz)
Flame resistance	according to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C 70 °C (cable, fixed installation)
	-40 °C 70 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C 60 °C

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67 (When plugged in)	
	IP65 (When plugged in)	
	IP65/IP67	
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)	
	-40 °C 85 °C (without mechanical actuation)	

Standards and regulations

M12

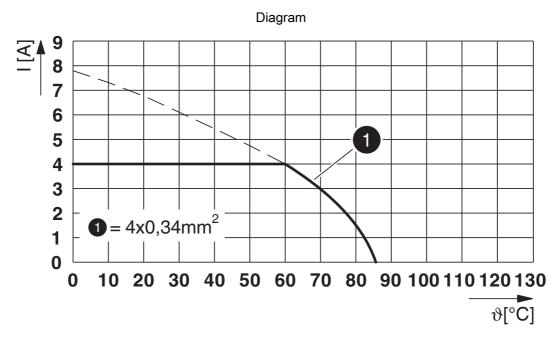
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101



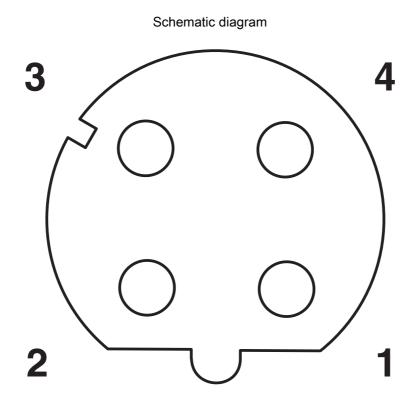
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Drawings



I = current strength, T = ambient temperature



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



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1437779

UL Recognized Approval ID: E118976-20100522					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	4 A	- 22	-

CUL Recognized Approval ID: E221474-20220907					
		Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	1.5 A	-	-

71	UL Recognized Approval ID: E221474-20220907				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	4 A	-	-



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Classifications

ECLASS

	ECLASS-11.0	27440103		
	ECLASS-12.0	27440103		
	ECLASS-13.0	27440103		
ETIM				
	ETIM 9.0	EC003570		
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	40b5eed5-3462-4ac2-80f0-6d1b63cddf13

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