

1552379

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Device connector rear mounting, PROFINET CAT5 (IEC 11801:2002), 4-position, PVC/PVC, green RAL 6018, Pin, straight, M12, coding: D, on free cable end, Rear mounting, M16 x 1.5, Bus line, cable length: 5 m, 0.34 mm², PROFINET, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1240019

Commercial data

Item number	1552379
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	ABQDGC
GTIN	4046356162296
Weight per piece (including packing)	353 g
Weight per piece (excluding packing)	353 g
Country of origin	DE



1552379

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Technical data

Notes

lotes	
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
	. He a protective can to protect connectors that are not in use

Use a protective cap to protect connectors that are not in use.
 The suitable accessories are available online in the accessory



1552379

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Finance that the protective or functional ground has been properly connected.		section of the product at phoenixcontact.com/products
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 13732-12008-12). Product properties		
ambient conditions, the surface of the connector can continue to warm up. In this case, the suer's responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12). Product properties Product type Data cable preassembled Sensor type PROFINET Number of positions 4 No. of cable outlets 1 Shelded yes Coding D Thread type M12 Insulation characteristics Overvoltage category II Degree of pollution 3 Interfaces Signal type/category PROFINET CATS (IEC 11801:2002) Signaling Status display present No Status display present No Electrical properties Rate surge voltage 2.2.5 kV ΔC Contact resistance \$3 πΩ Insulation resistance \$2 100 MΩ Nominal current I _N 4 A Transmission medium Copper Transmission characteristics (category) CAT5 (IEC 11801:2002) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material		are applicable when combining several circuits in a cable and/or
Product type		ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting
Sensor type PROFINET Number of positions 4 No. of cable outlets 1 Shielded yes Coding D Thread type M12 Insulation characteristics Voervoltage category Degree of pollution 3 Interfaces Signal type/category Signal type/category PROFINET CAT5 (IEC 11801:2002) Signaling No Status display present No Electrical properties No Rated surge voltage 2.5 kV AC Contact resistance \$ 3 mΩ Insulation resistance \$ 100 MΩ Nominal voltage U _N 250 V Nominal current I _N 4 A Transmission medium Copper Transmission characteristics (category) CAT5 (IEC 11801:2002) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material FKM	Product properties	
Number of positions	Product type	Data cable preassembled
No. of cable outlets	Sensor type	PROFINET
Shielded	Number of positions	4
Coding Thread type M12 Insulation characteristics Overvoltage category Degree of pollution 3 Interfaces Signal type/category PROFINET CAT5 (IEC 11801:2002) Signaling Status display Status display Status display No Status display present No Electrical properties Rated surge voltage 2.5 kV AC Contact resistance Insulation resistance Insulation resistance Nominal voltage U _N Nominal voltage U _N Nominal current I _N Transmission medium Copper Transmission characteristics (category) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 Seal material FKM	No. of cable outlets	1
Insulation characteristics	Shielded	yes
Insulation characteristics Overvoltage category Degree of pollution 3 Interfaces Signal type/category PROFINET CAT5 (IEC 11801:2002) Signalling Status display Status display Status display present No Electrical properties Rated surge voltage Contact resistance Insulation resistance Insulation resistance Nominal voltage U _N Nominal current I _N A A Transmission medium Copper Transmission medium Copper Transmission characteristics (category) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 Seal material	Coding	D
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Degree of pollution Interfaces Signal type/category PROFINET CAT5 (IEC 11801:2002) Signaling Status display Status display present No Electrical properties Rated surge voltage 2.5 kV AC Contact resistance ≤ 3 mΩ Insulation resistance ≥ 100 MΩ Nominal voltage U _N 250 V Nominal current I _N 4 A Transmission medium Copper Transmission characteristics (category) CAT5 (IEC 11801:2002) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material FKM	Insulation characteristics	
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Status display present No Electrical properties Electrical properties Rated surge voltage 2.5 kV AC Contact resistance ≤ 3 mΩ Insulation resistance ≥ 100 MΩ Nominal voltage U_N 250 V Nominal current I_N 4 A Transmission medium Copper Transmission characteristics (category) CAT5 (IEC 11801:2002) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material FKM	Signaling	
Status display present No Electrical properties Electrical properties Rated surge voltage 2.5 kV AC Contact resistance ≤ 3 mΩ Insulation resistance ≥ 100 MΩ Nominal voltage U_N 250 V Nominal current I_N 4 A Transmission medium Copper Transmission characteristics (category) CAT5 (IEC 11801:2002) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material FKM	Status display	No
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Transmission medium Copper Transmission characteristics (category) CAT5 (IEC 11801:2002) Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material FKM	· · · · · · · · · · · · · · · · · · ·	
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Max. conductor resistance 62 Ω/km Material specifications Flammability rating according to UL 94 V0 Seal material FKM		
Material specifications Flammability rating according to UL 94 Seal material FKM		·
Flammability rating according to UL 94 V0 Seal material FKM	IVIAX. CONQUCTOR RESISTANCE	02 12/NIII
Seal material FKM	Material specifications	
	Flammability rating according to UL 94	V0
Contact material CuZn	Seal material	FKM
	Contact material	CuZn



1552379

https://www.phoenixcontact.com/us/products/1552379

Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	PVC
Conductor material	Tin-plated Cu litz wires

Connection data

Connection technology

Connection method	Bus line
Conductor connection	
Contact connection type	Pin
Connection method	Bus line

Connector

Connection 1

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

Connection 2

Head design	free cable end

Cable/line

Cable length	5 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]
Conductor structure	1x4xAWG22/7, SF/TQ
Signal runtime	5.3 ns/m



1552379

https://www.phoenixcontact.com/us/products/1552379

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)
	21.3 dB (at 100 MHz)
Flame resistance	according to UL 1685 (CSA FT 4)



1552379

https://www.phoenixcontact.com/us/products/1552379

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)	-2585 (Plug / socket)
	-40 °C 70 °C (fixed routing)
	-20 °C 60 °C (Flexibly installed)

Standards and regulations

M12

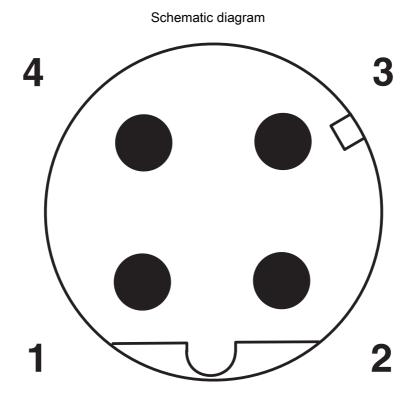
Standard designation	M12 connector
Standards/specifications	according to IEC 61076-2-101



1552379

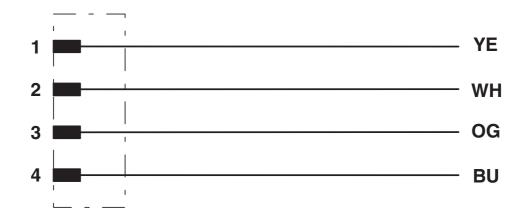
https://www.phoenixcontact.com/us/products/1552379

Drawings



Pin assignment M12 male connector, 4-pos., D-coded, male side

Circuit diagram





1552379

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1552379

.71	cUL Recognized Approval ID: E221474-20220907			
	Nominal v	oltage U _N Nominal curr	ent I _N Cross section AV	VG Cross section mm ²
	250 V	1.5 A	-	-

<i>9</i> 7	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	-	-

71	UL Recognized Approval ID: E221474-20)220907			
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	4 A	-	-



1552379

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Classifications

UNSPSC 21.0

ECLASS

27440102
27440116
27440116
EC002635

39121400



1552379

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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	e08ae678-71e3-47d0-80fa-f40e163210df	

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