

1534481

https://www.phoenixcontact.com/us/products/1534481

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 rear mounting, CANopen®, DeviceNet™, 5-position, PUR halogen-free, red lilac RAL 4001, shielded, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 2 m, CANopen®/DeviceNet™, PUR, violet, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1239937

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	1534481
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGG
Catalog page	Page 427 (C-2-2019)
GTIN	4046356026659
Weight per piece (including packing)	150.8 g
Weight per piece (excluding packing)	140.04 g
Customs tariff number	85444290
Country of origin	DE



1534481

https://www.phoenixcontact.com/us/products/1534481

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: On the product On the packing label In the supplied documentation Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact
	. He a protective can to protect composters 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



1534481

https://www.phoenixcontact.com/us/products/1534481

	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).
punting	
Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly note	With flat nut
oduct properties	
Product type	Circular connectors (device side)
Sensor type	CANopen®
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12
Data management status	
Article revision	14
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3
aterial 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	Zinc die-cast, nickel-plated
Outer sheath, material	PUR
ectrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	12 1 1 1 2



1534481

https://www.phoenixcontact.com/us/products/1534481

Nominal current I _N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Test voltage	2500 V
Transmission medium	Copper

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

Connector

Connection 1

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

Connection 2

Cable/line

Cable length	2 m

CANopen®/DeviceNet™, PUR, violet [920]

Dimensional drawing



Cable weight	90 kg/km
UL AWM Style	21198 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	CANopen®/DeviceNet™, PUR, violet [920]



1534481

https://www.phoenixcontact.com/us/products/1534481

Conductor structure	2xAWG24/19+2xAWG22/19
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor cross section	2x 0.25 mm² (Data cable)
	2x 0.34 mm² (Power supply)
	1x 0.34 mm² (Drain wire)
Wire diameter incl. insulation	1.95 mm ±0.05 mm (Data cable)
	1.4 mm ±0.05 mm (Power supply)
External cable diameter	6.70 mm ±0.3 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE (Data cable)
	PE (Power supply)
Single wire, color	red-black, blue-white
Twisted pairs	2 cores to the pair
Type of pair shielding	Plastic-coated aluminum foil, aluminum side outside
Overall twist	2 pairs around a drain wire in the center to the core
Optical shield covering	80 %
Insulation resistance	≥ 5 GΩ*km (Data cable)
	≥ 5 GΩ*km (Power supply)
Loop resistance	≤ 181.80 Ω/km (Data cable)
	≤ 114.80 Ω/km (Power supply)
Wave impedance	120 Ω ±10 % (with 1 MHz)
Cable capacity	nom. 40 nF/km (Data cable)
Nominal voltage, cable	≤ 300 V (Peak value, not for high-power applications)
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	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	67 mm
Max. bending cycles	5000000
Minimum bending radius, drag chain applications	10 x D
Bending radius	70 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s²
Shield attenuation	≤ 22.9 dB/km (with 1 MHz)
	≤ 16.4 dB/km (At 500 kHz)
	≤ 9.5 dB/km (At 125 kHz)
Halogen-free	in accordance with DIN VDE 0472 part 815



1534481

https://www.phoenixcontact.com/us/products/1534481

according to IEC 60754-1
UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
IEC 60332-1-2
in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
Low adhesion
-40 °C 80 °C (cable, fixed installation)
-30 °C 70 °C (Cable, flexible installation)
-20 °C 60 °C (for installation)
-20 °C 60 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

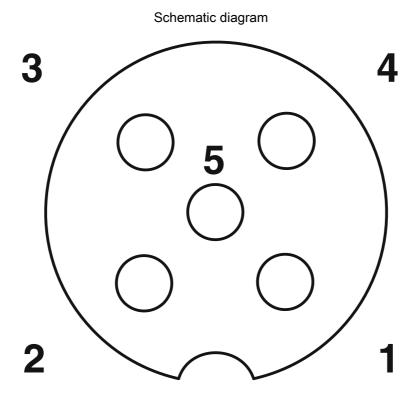
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101



1534481

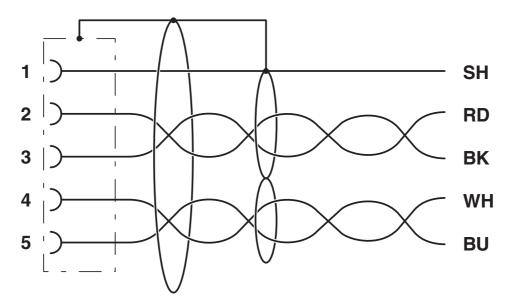
https://www.phoenixcontact.com/us/products/1534481

Drawings



Pin assignment M12 socket, 5-pos., A-coded, socket side view

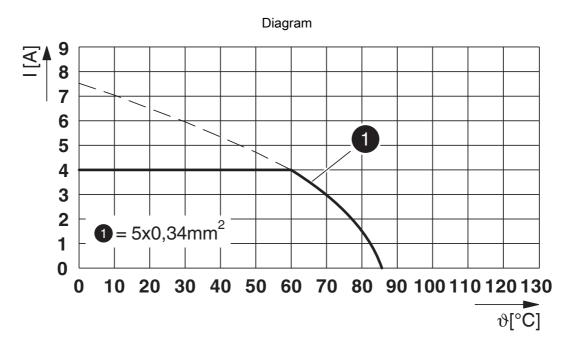
Circuit diagram





1534481

https://www.phoenixcontact.com/us/products/1534481



I = current strength, T = ambient temperature



1534481

https://www.phoenixcontact.com/us/products/1534481

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1534481

cUL Recognized Approval ID: E221474-20220907				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group keine				
	30 V	1.5 A	-	-

UL Recognized Approval ID: E221474-2	SUL Recognized Approval ID: E221474-20220907			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group keine				
	30 V	2 A	-	-

cUL us Recognized	j.
CULUS RECOONIZE	1



1534481

https://www.phoenixcontact.com/us/products/1534481

Classifications

ECLASS

	ECLASS-11.0	27440103
	ECLASS-12.0	27440103
	ECLASS-13.0	27440103
ETIM		
	ETIM 9.0	EC003570
UNSPSC		
	UNSPSC 21.0	39121400



1534481

https://www.phoenixcontact.com/us/products/1534481

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	d5906b85-428f-4310-8d89-416dc2f06160

Phoenix Contact 2024 @ - 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