

1437559

https://www.phoenixcontact.com/us/products/1437559

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Bus system flush-type socket, DeviceNet/CANopen, 5-pos., M12, shielded, A-coded, Speedcon, rear/screw mounting with Pg9 thread, with 5.0 m bus cable, $2 \times 0.2 \text{ mm}^2$; $2 \times 0.32 \text{ mm}^2$

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	1437559
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGH
Catalog page	Page 427 (C-2-2019)
GTIN	4046356457682
Weight per piece (including packing)	323.13 g
Weight per piece (excluding packing)	311.2 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

General	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

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.

also be taken into consideration.

- 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 suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products



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	 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/o 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).
ounting	
Mounting type	Rear mounting
Connection method	CAN Bus / DeviceNet
roduct properties	
Product type	Circular connectors (device side)
Sensor type	CANopen [®]
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A
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	Zinc die-cast, nickel-plated
Outer sheath, material	PUR
lectrical properties	
Rated surge voltage	1.5 kV
Insulation resistance	100 ΜΩ
Nominal voltage U _N	48 V AC
Norminal voltage on	60 V DC
Nominal current I _N	4 A
Transmission medium	Copper

Connection data

Conductor connection



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Connection method	CAN Bus / DeviceNet
Contact connection type	Crimp contacts
Tightening torque	2 Nm
	3 Nm

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

Head design	free cable end
3	

Cable/line

|--|

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]
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)



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Wire diameter incl. insulation	1.95 mm ±0.05 mm (Data cable)
	1.4 mm ±0.05 mm (Power supply)
External cable diameter	6.7 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 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	5000000
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
	according to IEC 60754-1
Flame resistance	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)
Other resistance	Low adhesion
Ambient temperature (operation)	-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



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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)

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

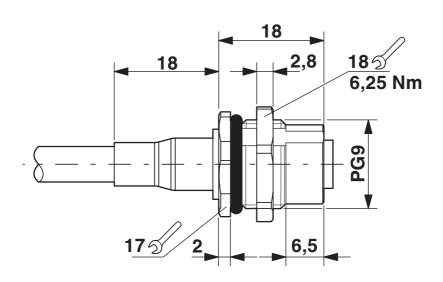


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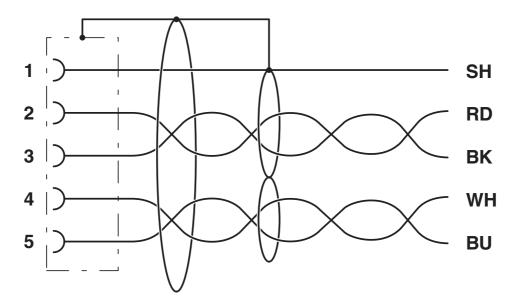
Drawings

Dimensional drawing



Dimensional drawing

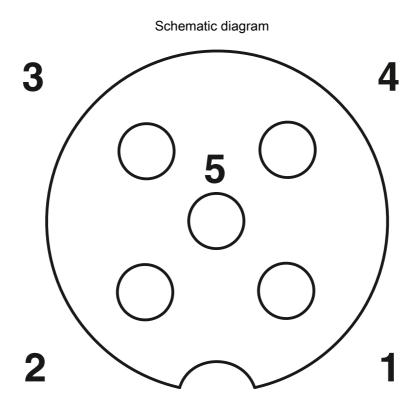
Circuit diagram





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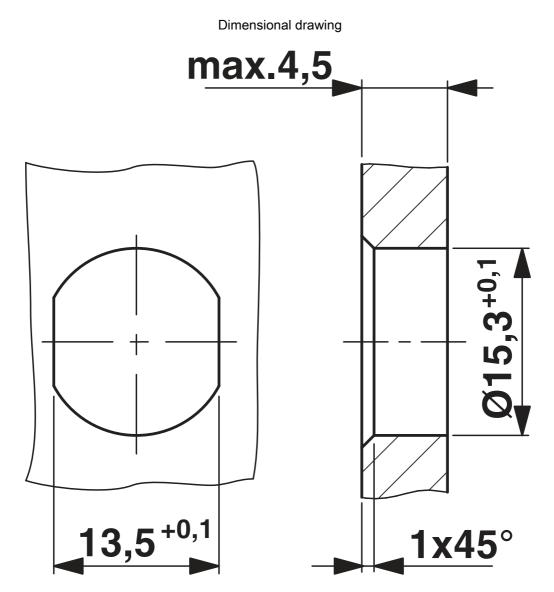


Pin assignment M12 socket, 5-pos., A-coded, socket side view



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Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1437559

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

EAC
Approval ID: B.01687



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Classifications

ECLASS

	ECLASS-11.0	27440103			
	ECLASS-12.0	27440103			
	ECLASS-13.0	27440103			
ETIM					
	ETIM 8.0	EC003570			
UNSPSC					
	UNSPSC 21.0	39121400			



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Environmental product compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



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Accessories

SACC-PG9-KD-NUT-SH - EMC nut

1440177

https://www.phoenixcontact.com/us/products/1440177

EMC nut, Threads, Pg9, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239704



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