

1437821

https://www.phoenixcontact.com/us/products/1437821

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Bus system flush-type plug, PROFINET, 4-pos., M12, shielded, D-coded, SPEEDCON, rear/screw mounting with Pg9 thread, with 2.0 m bus cable, $2 \times 2 \times 0.34 \text{ mm}^2$

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	1437821		
Packing unit	1 pc		
Minimum order quantity	1 pc		
Sales key	AB25		
Product key	ABQDGD		
Catalog page	Page 307 (PC-2011)		
GTIN	4046356458566		
Weight per piece (including packing)	163.7 g		
Weight per piece (excluding packing)	154.9 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	

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.

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 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/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).
Mounting	
Mounting type	Rear mounting
Connection method	Cable lug connection
Donation to a series of the se	
Product properties	
Product type	Circular connectors (device side)
Sensor type	PROFINET
Number of positions	4
Application	Data
No. of cable outlets	1
Shielded	yes
Coding	D
Insulation characteristics	
Overvoltage category	II II
Degree of pollution	3
Material specifications	
Flammability rating according to UL 94	Vo
Seal material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Outer sheath, material	PVC
Electrical properties	
Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	250 V AC
Nominal current I _N	4 A
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Transmission characteristics (category)	UNTO (ILO 11001.2002)

Connection data



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Conductor connection

Connection method	Cable lug connection	
Contact connection type	Crimp contacts	
Tightening torque	2 Nm	
	3 Nm	

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
moorton, minarawar oyoloo	_ 100

Connector

Connection 1

Head design	Plug
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	2 m
	Z M

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		
Signal speed	0.66 c		
Conductor structure signal line	7x 0.25 mm		



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AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.55 mm
External cable diameter	6.5 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. 0.9 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 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
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)
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)



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Standards/specifications

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

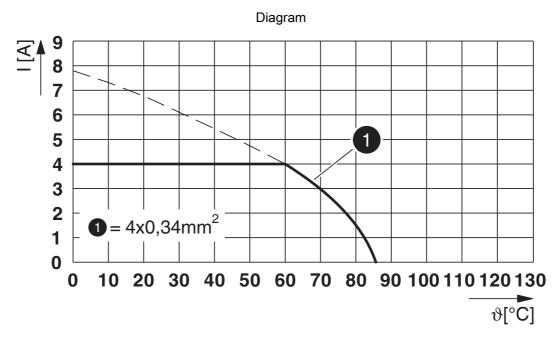
IEC 61076-2-101



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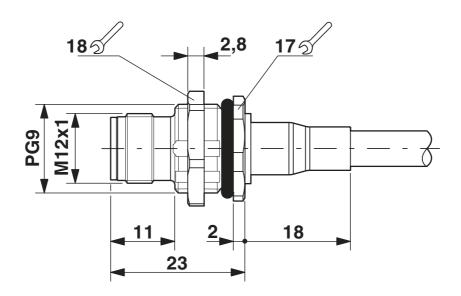
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Drawings



I = current strength, T = ambient temperature

Dimensional drawing

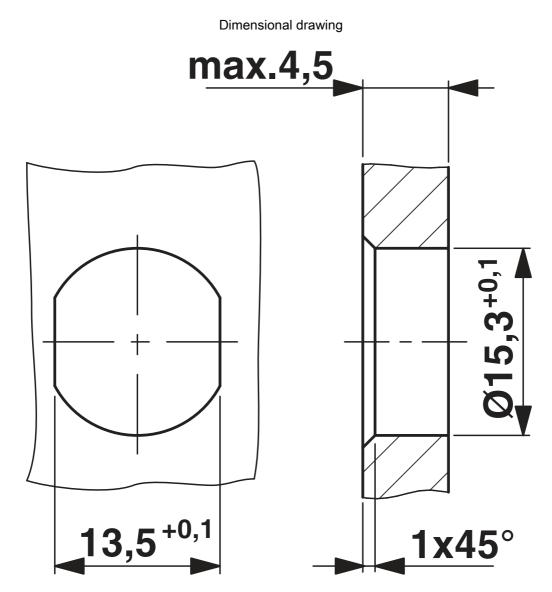


Dimensional drawing



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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/1437821

<i>71</i>	UL Recognized Approval ID: E118976-2	0100522			
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		250 V	4 A	- 22	-

EAC Approval ID: B.01687



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Classifications

UNSPSC 21.0

ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116
ETIM	
ETIM 8.0	EC002635
UNSPSC	

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-M16-SEALING PLUG SET - Screw plug

1453368

https://www.phoenixcontact.com/us/products/1453368



Screw plug, Rear mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239800

PROT-M12 FS - Sealing cap

1560251

https://www.phoenixcontact.com/us/products/1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field



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PROT-M12 FS-M - Sealing cap

1430488

https://www.phoenixcontact.com/us/products/1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

SACC-M16-SEAL CLM - Flat gasket

1430394

https://www.phoenixcontact.com/us/products/1430394

M16 flat gasket for M12 flush-type connectors with M16 fastening thread



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