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Bus system flush-type socket, PROFINET, 4-pos., M12, shielded, D-coded, SPEEDCON, rear/screw mounting with Pg9 thread, with 2.0 m bus cable,  $2 \times 2 \times 0.34$  mm<sup>2</sup>

#### Your advantages

- ${\ensuremath{\,^{\odot}}}$  Pre-assembled 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



### Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 458528
GTIN	4046356458528

#### Technical data

Dimensions

Length of cable	2 m
Ambient conditions	
Ambient temperature (operation)	-20 °C 60 °C (cable, fixed installation)
Degree of protection	IP65/IP67

#### General

Note	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.
Rated current at 40°C	4 A



### Technical data

General

Rated voltage	250 V
Rated surge voltage	2.5 kV
Number of positions	4
Coding	D - data
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
	EtherCAT <sup>®</sup> CAT5 (IEC 11801), 100 Mbps
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	2 Nm 3 Nm (Installation-side)
Material	
Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material, knurls	Nickel-plated brass
Sealing material	FKM
Standards and Regulations	
Flammability rating according to UL 94	V0
Cable	
Cable type	PROFINET PVC stranded CAT5
Cable type (abbreviation)	93B
UL AWM style	21694
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
	EtherCAT <sup>®</sup> CAT5 (IEC 11801), 100 Mbps
Cable structure	
	1x4xAWG22/7; SF/TQ
Conductor cross section	1x4xAWG22/7; SF/TQ           4x 0.34 mm²
Conductor cross section AWG signal line	
	4x 0.34 mm <sup>2</sup>
AWG signal line	4x 0.34 mm <sup>2</sup> 22
AWG signal line Conductor structure signal line	4x 0.34 mm²           22           7x 0.25 mm
AWG signal line Conductor structure signal line Core diameter including insulation	4x 0.34 mm²         22         7x 0.25 mm         1.55 mm
AWG signal line Conductor structure signal line Core diameter including insulation Wire colors	4x 0.34 mm²         22         7x 0.25 mm         1.55 mm         White, yellow, blue, orange
AWG signal line Conductor structure signal line Core diameter including insulation Wire colors Overall twist	4x 0.34 mm²         22         7x 0.25 mm         1.55 mm         White, yellow, blue, orange         Star quad
AWG signal line Conductor structure signal line Core diameter including insulation Wire colors Overall twist Shielding	4x 0.34 mm²         22         7x 0.25 mm         1.55 mm         White, yellow, blue, orange         Star quad         Aluminum-coated foil, tinned copper braided shield
AWG signal line Conductor structure signal line Core diameter including insulation Wire colors Overall twist Shielding Optical shield covering	4x 0.34 mm²         22         7x 0.25 mm         1.55 mm         White, yellow, blue, orange         Star quad         Aluminum-coated foil, tinned copper braided shield         85 %
AWG signal line         Conductor structure signal line         Core diameter including insulation         Wire colors         Overall twist         Shielding         Optical shield covering         External sheath, color	4x 0.34 mm²         22         7x 0.25 mm         1.55 mm         White, yellow, blue, orange         Star quad         Aluminum-coated foil, tinned copper braided shield         85 %         green RAL 6018



### Technical data

#### Cable

Minimum bending radius, flexible installation	7 x D
Cable weight	67 kg/km
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq$ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
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)
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)
Signal speed	0.66 c
Signal runtime	5.3 ns/m
Coupling resistance	$\leq$ 20.00 mΩ/m (at 10 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.)
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
Ambient temperature (storage/transport)	-50 °C 70 °C

**Environmental Product Compliance** 

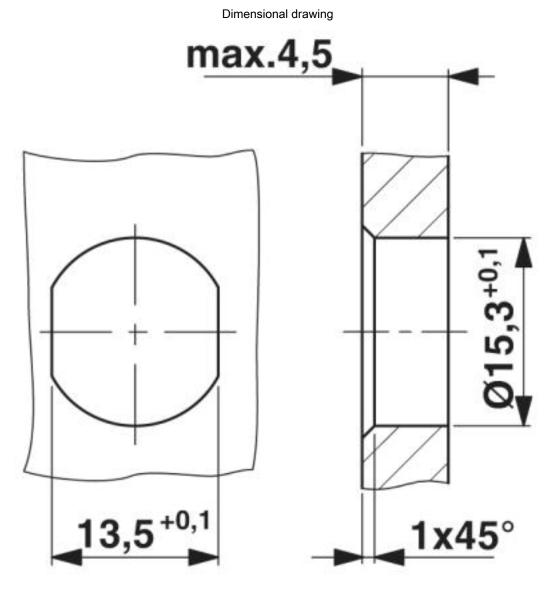


### Technical data

#### **Environmental Product Compliance**

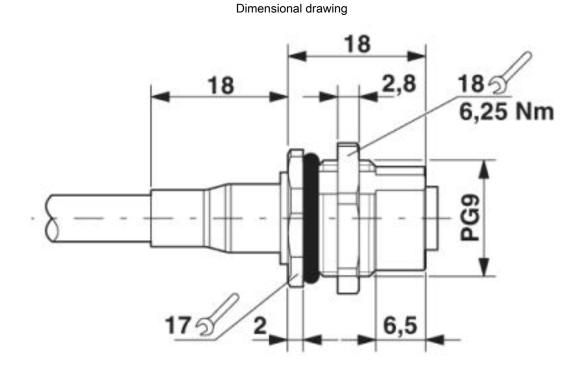
REACh SVHC	Lead 7439-92-1	
China RoHS	Environmentally Friendly Use Period = 50	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

### Drawings



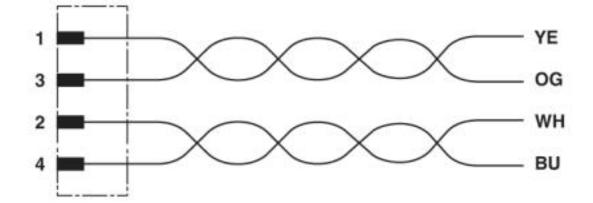
Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)





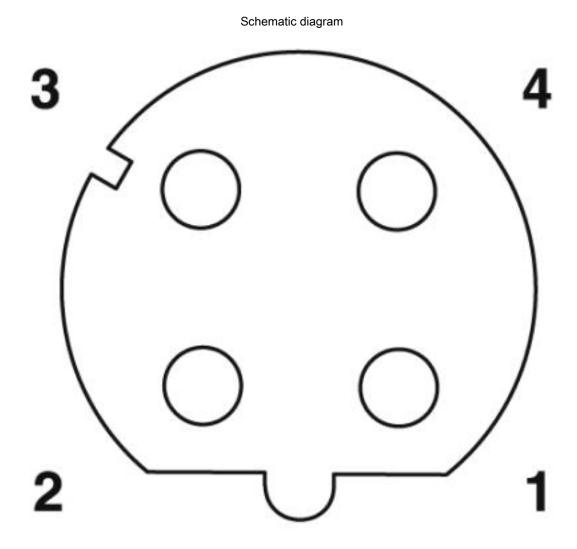
M12 panel feed-through

Circuit diagram



Contact assignment of the M12 socket

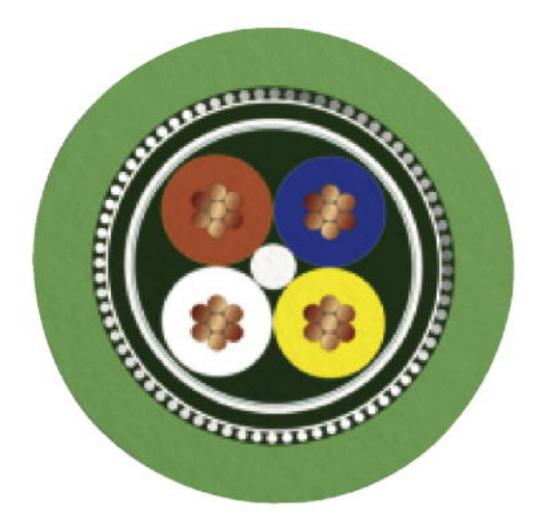




Pin assignment M12 socket, 4-pos., D-coded, female side



Cable cross section



PROFINET PVC stranded CAT5 [93B]

#### Approvals

Approvals

#### Approvals

UL Recognized / EAC

Ex Approvals

Approval details



Approvals

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UL Recognized	<b>F1</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 118976
Nominal voltage UN			250 V	
Nominal current IN			4 A	
mm²/AWG/kcmil			22	

EAC

EHC

B.00767

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