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Bus system flat-type plug, PROFINET, 4-position, Plug, straight, M12-SPEEDCON, D-coded, Front mounting, M16  $\times$  1.5, Individual wires, Cable length: 0.5 m

#### Why buy this product

- ☑ Pre-assembled with litz wires for immediate use
- Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- All standard pin assignments and codings for signal, data, and power transmission with a uniform design-in design.
- For high transmission safety: shield connection to the housing with optional EMC nut



## **Key Commercial Data**

Packing unit	1 STK
GTIN	4 046356 153577
GTIN	4046356153577

### Technical data

#### **Dimensions**

Length of cable	0.5 m	

#### Ambient conditions

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
Degree of protection	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.



## Technical data

### General

	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling)		
Rated current at 40°C	4 A		
Rated voltage	250 V		
Rated surge voltage	2.5 kV		
Number of positions	4		
Insulation resistance	≥ 100 MΩ		
Coding	D - data		
Standards/regulations	M12 connector IEC 61076-2-101		
Signal type/category	PROFINET		
Status display	No		
Overvoltage category	II		
Degree of pollution	3		
Connection method	Individual wires		
Insertion/withdrawal cycles	> 100		
Torque	3 Nm 4 Nm (Installation-side)		
Mounting type	Front mounting M16 x 1.5		

#### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 66
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	FKM

### Cable

Cable type	TPE litz wire
Conductor cross section	0.34 mm²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.2 mm ±0.07 mm
Thickness, insulation	0.21 mm (Core insulation)
Wire colors	Yellow, orange, white, blue
Material conductor insulation	TPE
Conductor material	Tin-plated Cu litz wires
Standards/specifications	M12 connector IEC 61076-2-101
Insulation resistance	$\geq 20~\text{M}\Omega^*\text{km}$
Conductor resistance	≤ 57.6 mΩ/m
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Nominal voltage, cable	300 V



### Technical data

#### Cable

Test voltage, cable	3000 V AC	
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)	
	-25 °C 85 °C (cable, flexible installation)	

#### Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Flammability rating according to UL 94	V0

#### **Environmental Product Compliance**

China RoHS	Environmentally Friendly Use Period = 50	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

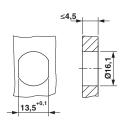
## **Drawings**

#### Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with thread

#### Dimensional drawing



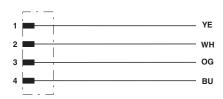
Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

#### Schematic diagram



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

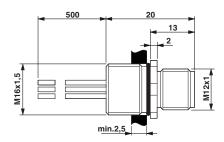
#### Circuit diagram



Contact assignment of the M12 plugs



#### Dimensional drawing



M12 flush-type connector

## Approvals

Approvals

Approvals

cULus Recognized / UL Recognized / EAC

Ex Approvals

#### Approval details

cULus Recognized	c <b>Sl</b> us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474-20140616	
mm²/AWG/kcmil			22-20
Nominal current IN			4 A
Nominal voltage UN			250 V

UL Recognized	<i>5</i> /1	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 118976
mm²/AWG/kcmil			26-20	
Nominal current IN			4 A	
Nominal voltage UN			250 V	

EAC	B.00767
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