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Flush-type plug, shielded, 12-pos., M12, A-coded, rear/screw mounting with M16 thread, with 1 m cable, 12 x  $0.14 \text{ mm}^2$ 

#### Your advantages

- ☑ 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
- For high transmission safety: shield connection to the housing with optional EMC nut



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 533362
GTIN	4046356533362
Weight per Piece (excluding packing)	100.000 g
Custom tariff number	85444290
Country of origin	Germany

## Technical data

## **Dimensions**

Length of cable	1 m
Stripping length of the free conductor end	35 mm

## Ambient conditions

	Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
ſ		-40 °C 85 °C (without mechanical actuation)



## Technical data

## Ambient conditions

	-25 °C 85 °C (Plug / socket)
Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)

#### 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	1.5 A
Rated voltage	30 V
Rated surge voltage	0.8 kV
Number of positions	12
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Signal type/category	Universal
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	Rear mounting M16 x 1.5 Thread with flat nut
Thread type	M16 x 1.5
Resistance to oil	in accordance with DIN EN 60811-404
Flame resistance	IEC 60332-1-2, IEC 60332-1, FT1, VW-1

## Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	FKM

## Cable

Cable type	PVC black
Cable type (abbreviation)	PVC



## Technical data

## Cable

Conductor cross section	6x 2x 0.14 mm²
Conductor structure signal line	18x 0.10 mm
Core diameter including insulation	1 mm ±0.05 mm
Thickness, insulation	0.21 mm
Wire colors	White-brown, green-yellow, gray-pink, blue-red, black-violet, gray/pink-red/blue
Overall twist	Six pairs around the filler to the core
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	black RAL 9005
External cable diameter	7.00 mm
External cable diameter D	7 mm ±0.03 mm
Smallest bending radius, fixed installation	42 mm
Smallest bending radius, movable installation	105 mm
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PVC
Conductor material	Tin-plated Cu litz wires
Standards/specifications	M12 connector IEC 61076-2-101
Conductor resistance	142 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1500 V AC
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)
	-25 °C 85 °C (cable, flexible installation)

## Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
Flame resistance	IEC 60332-1-2, IEC 60332-1, FT1, VW-1
Resistance to oil	in accordance with DIN EN 60811-404
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
Flammability rating according to UL 94	V0

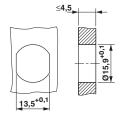
## **Environmental Product Compliance**

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



## Drawings

### Dimensional drawing



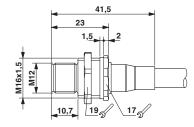
## Schematic diagram



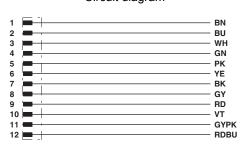
Pin assignment M12 male connector, 12-pos., male side view

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

### Dimensional drawing



### Circuit diagram



M12 flush-type connector

Contact assignment of the M12 plugs

## Classifications

## eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 11.0	27440102
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27143400
eCl@ss 6.0	27279200
eCl@ss 7.0	27440103
eCl@ss 8.0	27440103
eCl@ss 9.0	27440102

## **ETIM**

ETIM 4.0	EC002061
ETIM 5.0	EC002061
ETIM 6.0	EC002061



## Classifications

## **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	39121413
UNSPSC 18.0	39121413
UNSPSC 19.0	39121413
UNSPSC 20.0	39121413
UNSPSC 21.0	39121413

## Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC [H[

B.01687

#### Accessories

Accessories

Plug for cable screw gland

Screw plug - SACC-M16-SEALING PLUG SET - 1453368



M16 screw plug for unused M12 housing cutouts



## Accessories

Protective cap

Sealing cap - PROT-M12 FS - 1560251



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

Sealing cap - PROT-M12 FS-M - 1430488



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

Seal

Flat gasket - SACC-M16-SEAL CLM - 1430394



M16 flat gasket, for rear mounting of M12 flush-type connectors with M16 fastening thread

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