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



## **Key Commercial Data**

Packing unit	1 pc
Weight per Piece (excluding packing)	100.0 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)
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.
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

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## Technical data

### General

Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Signal type/category	Universal
Status display	No
Overvoltage category	II
Pollution degree	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

### Material

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

### Cable

Cable type	PVC black
Cable type (abbreviation)	PVC
Conductor cross section	0.14 mm <sup>2</sup>
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	1.1 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	8.50 mm
Number of bending cycles	2000000
Bending radius	85 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>



## Technical data

## Cable

Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PVC
Conductor material	Tin-plated Cu litz wires
Conductor resistance	142 Ω/km
Flame resistance	DIN VDE 0472 part 804, test type B
Resistance to oil	DIN VDE 0472 Part 803, test type B
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

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Resistance to oil	DIN VDE 0472 Part 803, test type B
Flame resistance	DIN VDE 0472 part 804, test type B
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
Flammability rating according to UL 94	V0

## Classifications

## eCl@ss

eCl@ss 4.0	27250313
eCl@ss 4.1	27250313
eCl@ss 5.0	27143423
eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCl@ss 7.0	27449001
eCl@ss 8.0	27440103

## **ETIM**

ETIM 4.0	EC002061
ETIM 5.0	EC002061

## **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501



## Classifications

### **UNSPSC**

UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

## Approvals

Approvals

Approvals

EAC

Ex Approvals

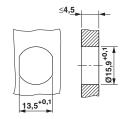
Approvals submitted

## Approval details

EAC

## **Drawings**

#### Dimensional drawing



## Schematic diagram

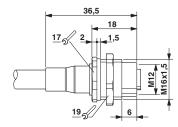


Pin assignment M12 socket, 12-pos., A-coded, view female side

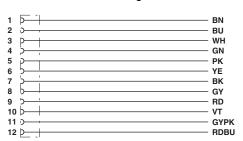
Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)



Dimensional drawing



Circuit diagram



M12 flush-type connector

Contact assignment of the M12 socket

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