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Flush-type connector, Power, 3-position, Socket, M12, S power, Rear mounting, M16 x 1.5, Individual wires, cable length: 1.5 m, 1.31 mm<sup>2</sup>, UL/cUL stranded hook-up wire

#### Your advantages

- $\ensuremath{\,^{\scriptsize \ensuremath{\mathbb{M}}}}$  For compact devices: transmit high power in a confined space
- For industrial infrastructure applications
- Protection against mismatching thanks to S-coding
- 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
- For high transmission safety: shield connection to the housing with optional EMC nut

# RoHS

### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	4 063151 173166
GTIN	4063151173166

### **Technical data**

#### Dimensions

	Length of cable	1.5 m
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### Ambient conditions

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-25 °C 85 °C (Plug / socket)
Degree of protection	IP65
	IP67

General



### Technical data

#### General

Note Rated current at 40°C	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 voltage	630 V
<b>v</b>	6 kV
Rated surge voltage	
Number of positions	3
Insulation resistance	$\geq$ 100 MΩ
Coding	S power
Standards/regulations	M12 connector IEC 61076-2-111 In line with
Signal type/category	Power
Status display	No
Overvoltage category	
Degree of pollution	3
Test voltage	6 kV
Connection method	Individual wires
Insertion/withdrawal cycles	> 100
Torque	3 Nm 4 Nm (M12 connector)
Mounting type	Rear mounting M16 x 1.5 With flat nut
Thread type	M16 x 1.5
Halogen-free	yes
Flame resistance	in acc. to UL 1581 VW1

### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	РА
Material, knurls	CuZn alloy, nickel-plated
Sealing material	FKM

#### Cable

Cable type	UL/cUL stranded hook-up wire
Conductor cross section	1.31 mm <sup>2</sup>
AWG signal line	16
Core diameter including insulation	2.2 mm
Wire colors	black 1, black 2, green/yellow
Material conductor insulation	mPPE
Conductor material	Bare Cu litz wires
Standards/specifications	M12 connector IEC 61076-2-111 In line with
Ambient temperature (operation)	-40 °C 105 °C (cable, fixed installation)

10/28/2020 Page 2 / 7



### Technical data

Cable

-20 °C 105 °C (cable, flexible installation)

#### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-111 In line with
Flame resistance	in acc. to UL 1581 VW1
Halogen-free	yes
Flammability rating according to UL 94	V0
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.
	<ul> <li>For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	• 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
	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).

10/28/2020 Page 3 / 7



## Technical data

### **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"

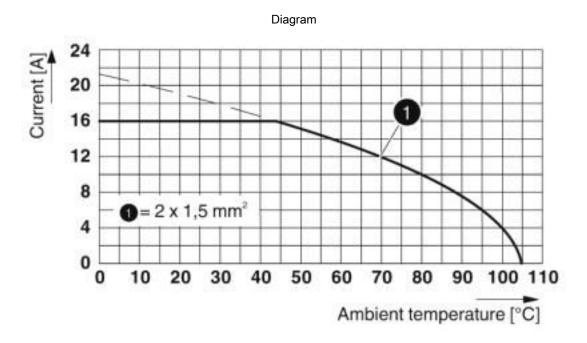
## Drawings

Schematic diagram



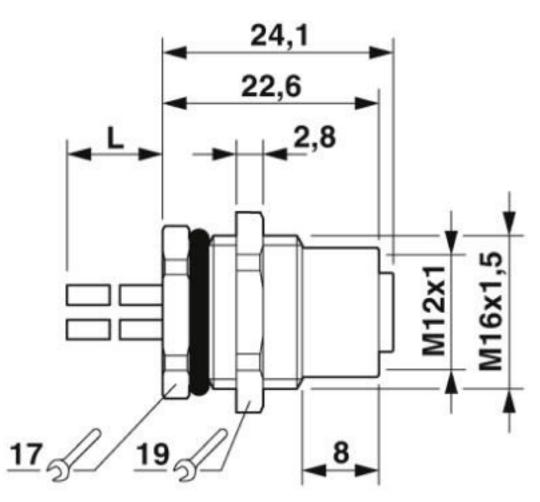
Pin assignment: M12 socket, 3-pos., S-coded, view of socket side





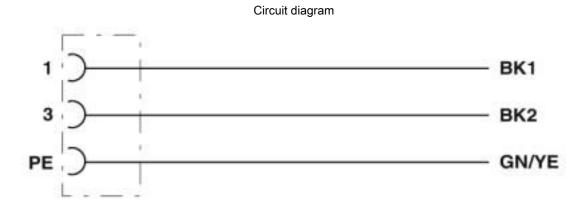
Derating diagram





Dimensional drawing

M12 flush-type plug



Contact assignment of the M12 socket



### Classifications

### eCl@ss

eCl@ss 10.0.1		27440102
eCl@ss 11.0		27440102
eCl@ss 8.0		27440103
eCl@ss 9.0		27440102
ETIM		
ETIM 5.0		EC002061
Approvals		
Approvals		
Approvals		
EAC / cULus Recognized		
Ex Approvals		
Approval details		
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 R88ACRGD0R3C
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 1300660036
 1302262116
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 1300220104
 1300220119

 1301240492
 1301810221
 1365323-1
 1613055
 176P12
 1971465-2
 20240400003
 20240400013
 2085828-1
 20886510030
 2-22733-8
 22733-8

 8
 CB-5PSBC-RS
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 CB-JST3PSW-RS
 CB-M12COM-R10
 25AC84
 25AK84X
 25AU25
 25FN82
 3011-03

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 ACL-HHS-1M(CAT5E)
 SSL009PC2DC012N
 FC2A-KC6C
 2085828-2
 20886510150
 CCS-FCB-5
 CCSFCBF2