

1178140

https://www.phoenixcontact.com/us/products/1178140

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Device connector, rear mounting, Power, 5-position, Socket, M12, coding: K , on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 1 m, 1.31 mm 2 , UL/cUL stranded hookup wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1238589

Your advantages

- · For compact devices: transmit high power in a confined space
- Easy-to-install, optimized XL housing contour with wrench size 19
- · Mechanical tightening limitation for long-term-stable gasket
- · Preassembled 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

Commercial data

Item number	1178140
Packing unit	1 pc
Minimum order quantity	25 pc
Sales key	AB27
Product key	ABQCHG
GTIN	4063151212629
Weight per piece (including packing)	96.1 g
Weight per piece (excluding packing)	96 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

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General	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.
General	Lock nut is included in the scope of delivery
Safety note	
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.
	 For operating voltages > 50 V AC, conductive connector housings must be grounded
	 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



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	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).
Mounting	
Mounting type	Rear mounting
Assembly instructions	Tightening limitation
Connection method	Individual wires
Product properties	
Product type	Circular connectors (device side)
Sensor type	Power
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	К
Thread type	M12
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3
Material specifications	
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Bare Cu litz wires
Electrical properties	
	630 V
Rated voltage in acc. with IEC 61076-2-101	
Rated surge voltage	6 kV 6 kV
Nominal voltage U_N	630 V
Nominal current I _N	12 A
	6 kV
Test voltage	UKV



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Connection data

Conductor connection

Connection method	Individual wires	
Contact connection type	Socket	
Conductor cross section	1.31 mm²	
Tightening torque	0.8 Nm	
	1.3 Nm	

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Connector

Connection 1

Head design	Socket
Head thread type	M12
Coding	К

Connection 2

Head design from	ree cable end
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Cable/line

Cable length	1 m	
Cable type	UL/cUL stranded hook-up wire	
Signal type/category	Power	
Wire diameter incl. insulation	2.2 mm	
Single wire, color	black 1, black 2, black 3, black 4, green/yellow	
Conductor material	Bare Cu litz wires	
AWG signal line	16	
Material wire insulation	mPPE	
Halogen-free	yes	
Flame resistance	in acc. to UL 1581 VW1	
Ambient temperature (operation)	-40 °C 105 °C (cable, fixed installation)	
	-25 °C 105 °C (Cable, flexible installation)	

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)



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	-25 °C 105 °C (Cable, flexible installation)		
	-40 °C 105 °C (cable, fixed installation)		
Standards and regulations			
Flame resistance	in acc. to UL 1581 VW1		
M12			
····-			
Standard designation	M12 connector		
Standards/specifications	IEC 61076-2-111		
Note	In line with		

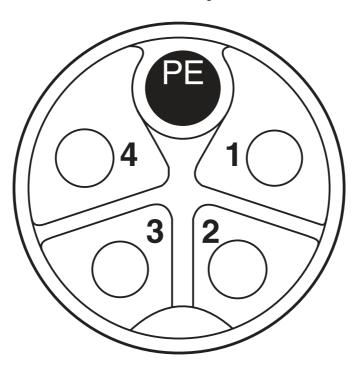


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Drawings

Schematic diagram



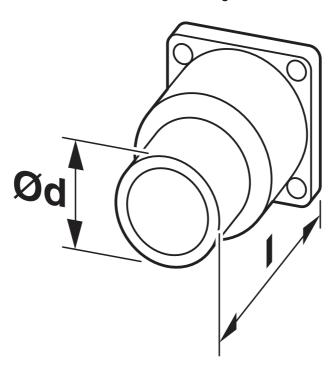
Pin assignment of M12 socket, 5-pos., K-coded, socket side view



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Dimensional drawing



Technical drawings can be found under Downloads



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1178140



c 911 us	cULus Recognized Approval ID: E468743-20180113				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		600 V	12 A	- 16	-



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Classifications

ECLASS

UNSPSC 21.0

	ECLASS-11.0	27440102	
	ECLASS-12.0	27440116	
	ECLASS-13.0	27440116	
ETIM			
	ETIM 8.0	EC002635	
UN	SPSC		

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Environmental product compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



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Accessories

PROT M12 MS PWR - Screw plug

1092802

https://www.phoenixcontact.com/us/products/1092802



An M12 screw plug for the unoccupied M12 females of the M12 POWER connectors, boxes, and flush-type connectors

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