

1231030

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Device connector front mounting, Power, 4-position, Socket, straight, M12-Standard, T-coding, on free cable end, Individual wires, cable length: 1.5 m, 1.31 mm², UL/cUL stranded hook-up wire, potted, this item is expected to be lead-free from Q4 2025 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

## 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	1231030
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCFG
GTIN	4063151331504
Weight per piece (including packing)	101 g
Weight per piece (excluding packing)	98.374 g
Customs tariff number	85444290
Country of origin	DE



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## Technical data

#### Notes

Notes on operation	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	Contact connection method: Crimp connection

## Mounting

Mounting type	Front mounting (M16 x 1.5, XL variant, tightening limitation)
Tightening torque	0.8 Nm 1.3 Nm (Installation-side)

## Product properties

Product type	Circular connectors (device side)
Application	Power
Sensor type	Power
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	Т
Thread type	M12

#### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Material specifications

Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Bare Cu litz wires

# Electrical properties

Rated surge voltage	1.5 kV
Rated surge voltage	1.5 kV AC/DC
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ



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Nominal voltage U <sub>N</sub>	63 V DC
Nominal current I <sub>N</sub>	12 A
Test voltage	1.5 kV

## 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 (Installation-side)

## Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100

#### Connector

#### Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	Standard
Coding	T

#### Connection 2

Head design free	ee cable end
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## Cable/line

Cable length	1.5 m
Cable type	UL/cUL stranded hook-up wire
Signal type/category	Power
Wire diameter incl. insulation	2 mm
Single wire, color	black, brown, blue, white
Cable cross section	1.31 mm²
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 85 °C (without mechanical actuation)
	-40 °C 85 °C (without mechanical actuation)
	-25 °C 105 °C (Cable, flexible installation)



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#### Environmental and real-life conditions

#### Ambient conditions

egree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C 85 °C (Plug / socket)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C 85 °C (without mechanical actuation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C 105 °C (Cable, flexible installation)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C 105 °C (cable, fixed installation)
UL Type Rating	Type 4 (indoor use only)

## Standards and regulations

Flame resistance	in acc. to UL 1581 VW1	
Standard designation	M12 circular connector	
Standards/specifications	according to IEC 61076-2-111	

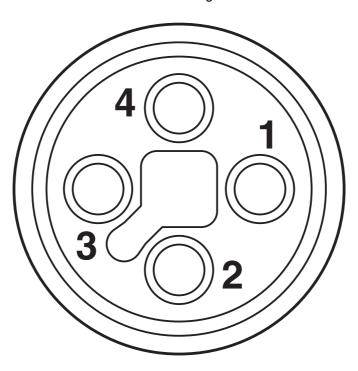


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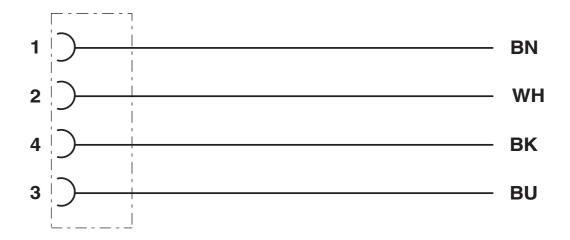
# Drawings





Pin assignment of M12 socket, 4-pos., T-coded, socket side view

Circuit diagram



Contact assignment of the M12 socket



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# Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1231030

. <b>91</b>	CUL Recognized Approval ID: E468743-20190917				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine					
		63 V	12 A	16	-

UL Recognized Approval ID: E468743-20190917				
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	63 V	12 A	16	-



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## Classifications

#### **ECLASS**

	ECLASS-13.0	27440103	
	ECLASS-15.0	27440103	
ETIM			
	ETIM 9.0	EC003570	
UNSPSC			
	UNSPSC 21.0	39121400	



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# Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	ea085e57-7ee4-41f7-9eb9-8127ed05e057

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