

1411599

https://www.phoenixcontact.com/us/products/1411599

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Device connector rear mounting, Power, 4-position, Socket, straight, M12-Standard, T-coding, on free cable end, Individual wires, cable length: 0.5 m, 1.31 mm², UL/cUL stranded hook-up wire, potted, this item is expected to be lead-free from Q2 2026 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	1411599
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB24
Product key	ABQCHG
GTIN	4046356936064
Weight per piece (including packing)	58.4 g
Weight per piece (excluding packing)	46.589 g
Customs tariff number	85444290
Country of origin	DE



1411599

https://www.phoenixcontact.com/us/products/1411599

#### 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.
Order information:	Lock nut is included in the scope of delivery

#### Mounting

Mounting type	Rear mounting (M16 x 1.5, XL version, with flat nut, tightening limitation)
Tightening torque	1.5 Nm 2 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
No. of power contacts	4
Shielded	no
Coding	Т
Thread type	M12

Overvoltage category	III
Degree of pollution	3

#### Material specifications

Material Housing	GD-Zn
Material Housing surface	Ni
Material Molding compound	PUR (potted)
Flammability rating according to UL 94	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Conductor material	Bare Cu litz wires

#### Electrical properties

Rated surge voltage	1.5 kV
---------------------	--------



1411599

https://www.phoenixcontact.com/us/products/1411599

Rated surge voltage	1.5 kV AC/DC
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
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	1.5 Nm 2 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	Т

#### Connection 2

Head design	free cable end

#### Cable/line

Cable length	0.5 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
	-40 °C 85 °C (without mechanical actuation)



1411599

https://www.phoenixcontact.com/us/products/1411599

Ambient temperature (operation)	-40 °C 85 °C (without mechanical actuation)	
	-25 °C 105 °C (Cable, flexible installation)	

#### Environmental and real-life conditions

#### Ambient conditions

Degree 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	

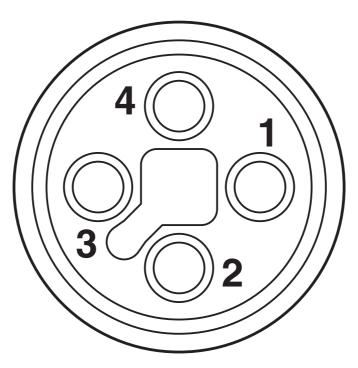


1411599

https://www.phoenixcontact.com/us/products/1411599

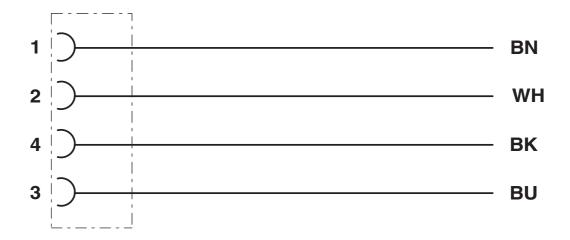
### Drawings





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

Circuit diagram



Contact assignment of the M12 socket



1411599

https://www.phoenixcontact.com/us/products/1411599

#### Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411599

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	-



1411599

https://www.phoenixcontact.com/us/products/1411599

#### Classifications

#### **ECLASS**

	ECLASS-13.0	27440103
	ECLASS-15.0	27440103
E٦	ΓIM	
	ETIM 9.0	EC003570
	JORGO	
Uľ	NSPSC	
	UNSPSC 21.0	39121400



1411599

https://www.phoenixcontact.com/us/products/1411599

#### 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	fb5ec3a5-7274-4b9f-b443-7a48e18b422f

Phoenix Contact 2025 @ - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com