

1682993

https://www.phoenixcontact.com/us/products/1682993

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.



Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on free cable end, cable length: 10 m

# Your advantages

• Easy and safe: 100% electrically tested plug-in components



1682993

https://www.phoenixcontact.com/us/products/1682993

# **Technical Data**

### Product properties

Product type	Sensor/actuator cable	
Number of positions	4	
Application	Standard	
No. of cable outlets	1	
Shielded	no	
Coding	A	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	

### Material specifications

Flammability rating according to UL 94	НВ
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

## Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V AC
	250 V DC
Nominal current I <sub>N</sub>	4 A
Protective circuit	unwired

## Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	-------

# Signaling

Status display	No
Status display present	No

#### Connection data

#### Conductor connection

Tightening torque	0.4 Nm (M12 connector)
3 ** 3 ** 1 **	( )



1682993

https://www.phoenixcontact.com/us/products/1682993

## Connector

#### Connection 1

Туре	Plug straight M12
Number of positions	4
Coding type	A
Number of positions	4

#### Connection 2

Commodition	
Туре	free cable end

### Cable/line

### PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	30 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm
External cable diameter	4.2 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.21 mm
Thickness, outer sheath	approx. 0.5 mm
Overall twist	4 wires, twisted
Max. conductor resistance	≤ 58 Ω/km
Insulation resistance	≥ 1 GΩ*km
Nominal voltage, cable	≤ 300 V



1682993

https://www.phoenixcontact.com/us/products/1682993

Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	10000000
lalogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	hydrolysis and microbe resistant
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
	Low adhesion
	abrasion-resistant
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	flexible
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-25 °C 80 °C (Cable, flexible installation)

### Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)

# Standards and regulations

Standards/specifications	IEC 61076-2-101

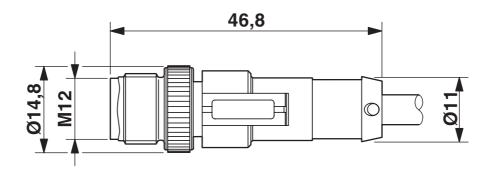


1682993

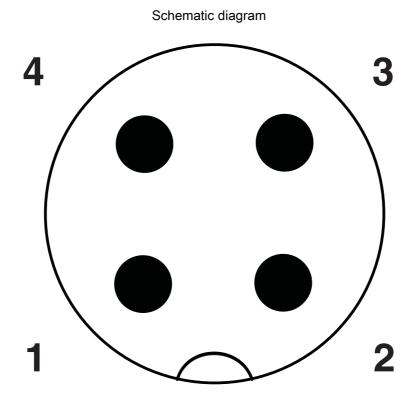
https://www.phoenixcontact.com/us/products/1682993

# **Drawings**

## Dimensional drawing



Plug, M12 x 1, straight, shielded



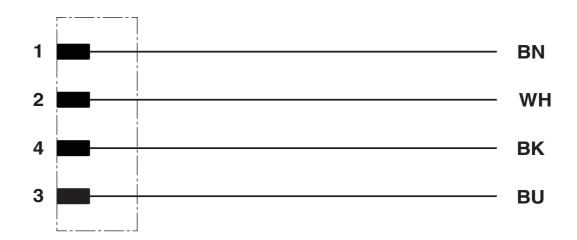
Pin assignment M12 plug, 4-pos., A-coded, view plug side



1682993

https://www.phoenixcontact.com/us/products/1682993

### Circuit diagram



Phoenix Contact 2023 © - 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