

1500402

https://www.phoenixcontact.com/us/products/1500402

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 Socket straight M12, coding: A, cable length: 10 m

Commercial data

Item number	1500402
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	AF1CCA
GTIN	4017918592509
Weight per piece (including packing)	278.9 g
Weight per piece (excluding packing)	272.2 g
Customs tariff number	85444290
Country of origin	DE



1500402

https://www.phoenixcontact.com/us/products/1500402

Technical data

Product properties

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

Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	250 V AC
	250 V DC
Nominal current I _N	4 A

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

Connector

Connection 1

Type	Plug straight M12
Type	Tidg straight WTZ



1500402

https://www.phoenixcontact.com/us/products/1500402

Number of positions	4
Coding type	A

Connection 2

Туре	Socket straight M12
Number of positions	4
Coding type	A

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	4.20 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. 0.50 mm
Overall twist	4 wires, twisted
Max. conductor resistance	≤ 58 Ω/km
Insulation resistance	≥ 1 GΩ*km
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	21 mm



1500402

https://www.phoenixcontact.com/us/products/1500402

Smallest bending radius, movable installation	42 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 42 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 7 m/s, Acceleration: 10 m/s²
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.
lalogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
lame 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) (male connector/female connector)	-25 °C 90 °C (Plug / socket)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C 80 °C (cable, fixed installation)
Ambient temperature (operation) (Cable, flexible installation)	-5 °C 80 °C (Cable, flexible installation)

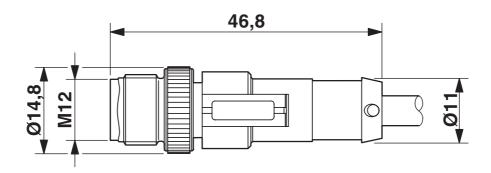


1500402

https://www.phoenixcontact.com/us/products/1500402

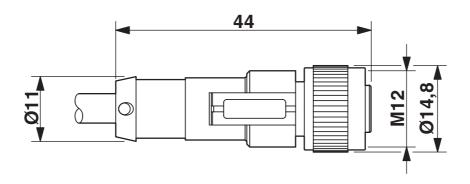
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



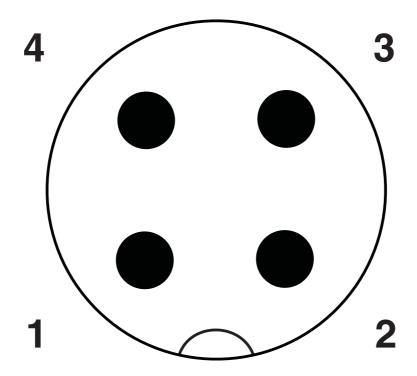
M12 x 1 socket, straight



1500402

https://www.phoenixcontact.com/us/products/1500402

Schematic diagram



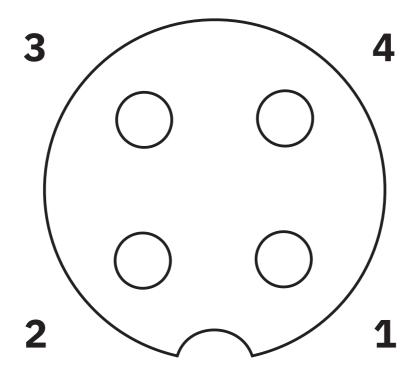
Pin assignment M12 plug, 4-pos., A-coded, view plug side



1500402

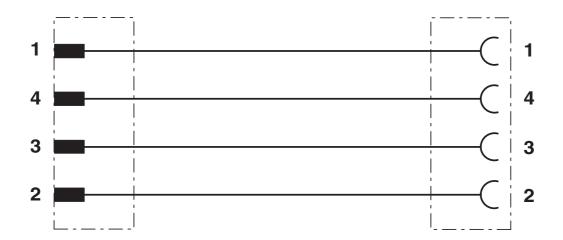
https://www.phoenixcontact.com/us/products/1500402

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug and the M12 socket



1500402

https://www.phoenixcontact.com/us/products/1500402

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1500402

UL Listed Approval ID:	FILE E 221474			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine				
	300 V	4 A	-	-

CUL Listed Approval ID: FILE E 221474					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		300 V	4 A	-	-

	EAC Dolls
EAC	EAC-RoHS
LIIL	Approval ID: RU D-DE.HB35.B.00387



1500402

https://www.phoenixcontact.com/us/products/1500402

Classifications

ECLASS

	ECLASS-13.0	27060311
	ECLASS-15.0	27060311
ET	ТІМ	
	ETIM 9.0	EC001855
UN	NSPSC	

U

UNSPSC 21.0	26121600



1500402

https://www.phoenixcontact.com/us/products/1500402

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%
EF3.0 Climate Change	
CO2e kg	5.126 kg CO2e

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