

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

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, 5-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, Plug straight M12, coding: A, on free cable end, cable length: 1.5 m, for robots and drag chains

Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Reliable solution for the body shop as cable is resistant to welding sparks

Commercial Data

Item number	1457225
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF1CDA
Catalog Page	Page 203 (C-2-2019)
GTIN	4046356593649
Weight per Piece (including packing)	61.4 g
Weight per Piece (excluding packing)	61.4 g
Customs tariff number	85444290
Country of origin	PL

Technical Data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
Application	Robots and drag chains
No. of cable outlets	1
Shielded	no
Coding	A - standard

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
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	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Protective circuit	unwired

Mechanical properties

Mechanical data

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

LED signaling

Status display	No
Status display present	No

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)
-------------------	------------------------

Connector

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Connection 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	A


Connection 2

Head design	free cable end
-------------	----------------

Cable / line

Cable length	1.5 m
--------------	-------

PUR halogen-free highly flexible resistant to welding sparks gray 5th conductor green/yellow [802]

Dimensional drawing	
Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
UL AWM Style	20549
Number of positions	5
Shielded	no
Cable type	PUR halogen-free highly flexible resistant to welding sparks gray 5th conductor green/yellow [802]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	5x 0.34 mm ² (Signal line)
Wire diameter incl. insulation	1.3 mm ±0.05 mm (Signal line)
External cable diameter	5.1 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	Black, brown, blue, white, green/yellow
Overall twist	5 wires around filler to the core
Max. conductor resistance	approx. 53 Ω/km
Insulation resistance	≥ 20 MΩ*km
Nominal voltage, cable	300 V
Test voltage	1200 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Max. bending cycles	10000000
	15000000
Torsion force	± 360 °/m
Torsion cycles	1000000
Halogen-free	The cable is halogen-free
Flame resistance	in accordance with UL 758/1581 FT2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	Silicone-free
Special properties	Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing
	Free from silicone and cadmium
	Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (Cable, flexible installation)

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 90 °C (Cable, flexible installation)
	to 120 °C (for 3000 h)
	to 80 °C (in acc. with UL)

Standards and regulations

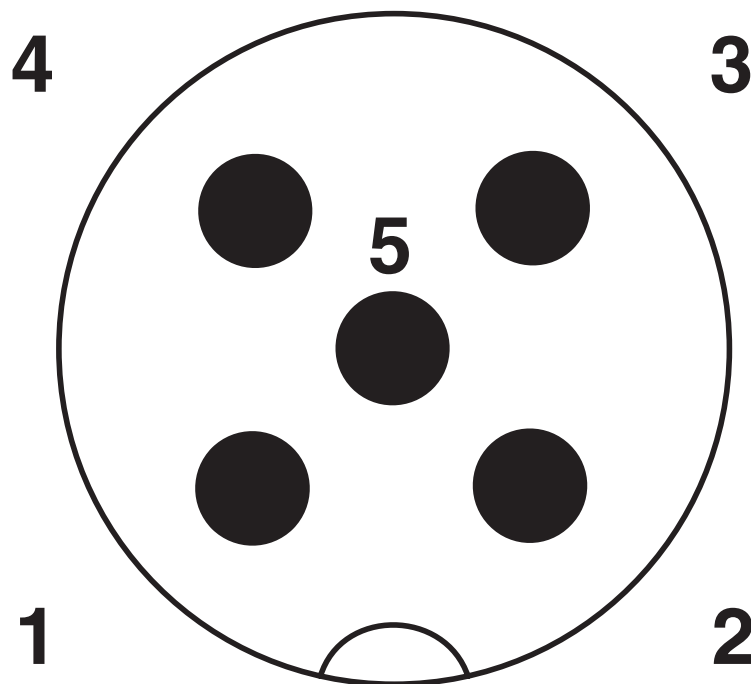
Standards/specifications	IEC 61076-2-101
--------------------------	-----------------

1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Drawings

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Circuit diagram



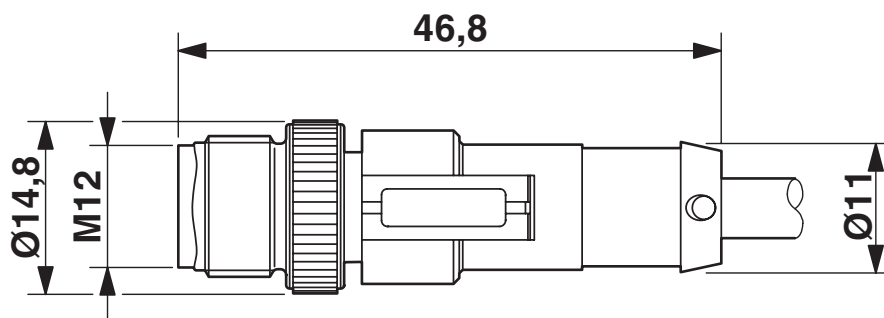
Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Dimensional drawing



Plug, M12 x 1, straight, shielded

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Approvals



EAC

Approval ID: RU C-DE.BL08.B.00286



UL Listed

Approval ID: FILE E 221474

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	125 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
	125 V	4 A	-	-



EAC

Approval ID: RU D-DE.HB35.B.00387

cULus Listed

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Classifications

ECLASS

ECLASS-9.0	27060311
ECLASS-10.0.1	27060311
ECLASS-11.0	27060311

ETIM

ETIM 8.0	EC001855
----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Accessories

Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

<https://www.phoenixcontact.com/pc/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Tool

Tool - SAC BIT M12-D15 - 1208432

<https://www.phoenixcontact.com/pc/products/1208432>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Sensor/actuator cable - SAC-5P-M12MS/ 1,5-802



1457225

<https://www.phoenixcontact.com/pc/products/1457225>

Sealing cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

<https://www.phoenixcontact.com/pc/products/1430873>

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

info@phoenixcontact.com