

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

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, black-gray RAL 7021, shielded (Advanced Shielding Technology), Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 7.5 m

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Commercial data

Item number	1012320
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	*****
Product key	AF1CKA
GTIN	4055626489452
Weight per piece (including packing)	356 g
Weight per piece (excluding packing)	338 g
Customs tariff number	85444290
Country of origin	PL

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Technical data

Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
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	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 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 (M12 connector)
-------------------	------------------------

Connector

Connection 1

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Type	Plug straight M12
Number of positions	5
Coding type	A

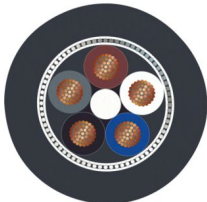
Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	A

Cable/line

Cable length	7.5 m
--------------	-------

PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	48 kg/km
UL AWM Style	20549
Number of positions	5
Shielded	yes
Cable type	PUR halogen-free black [PUR]
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	1.27 mm ±0.02 mm (Signal line)
External cable diameter	5.90 mm ±0.2 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, gray
Thickness, insulation	≥ 0.21 mm
Overall twist	5 wires around filler to the core
Optical shield covering	85 %
Max. conductor resistance	max. 57 Ω/km (at 20 °C)
Insulation resistance	70 GΩ*km (at 20 °C)
Nominal voltage, cable	300 V (at 20 °C)
Test voltage Core/Core	3000 V (at 20 °C)
Smallest bending radius, fixed installation	29.5 mm
Smallest bending radius, movable installation	59 mm (up to +60 °C)

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 59 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in acc. with UL FT-2
Other resistance	hydrolysis and microbe resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable
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
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable

1012320

<https://www.phoenixcontact.com/in/products/1012320>

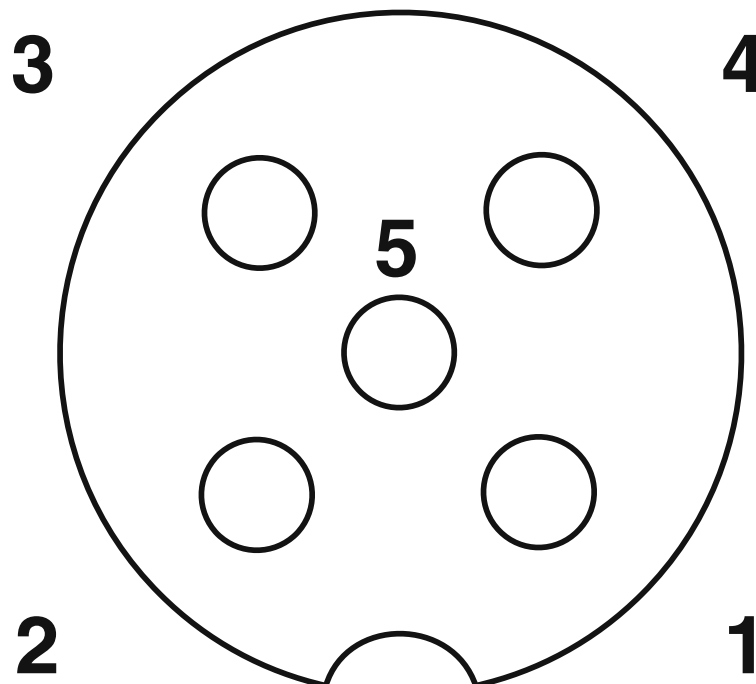
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable

1012320

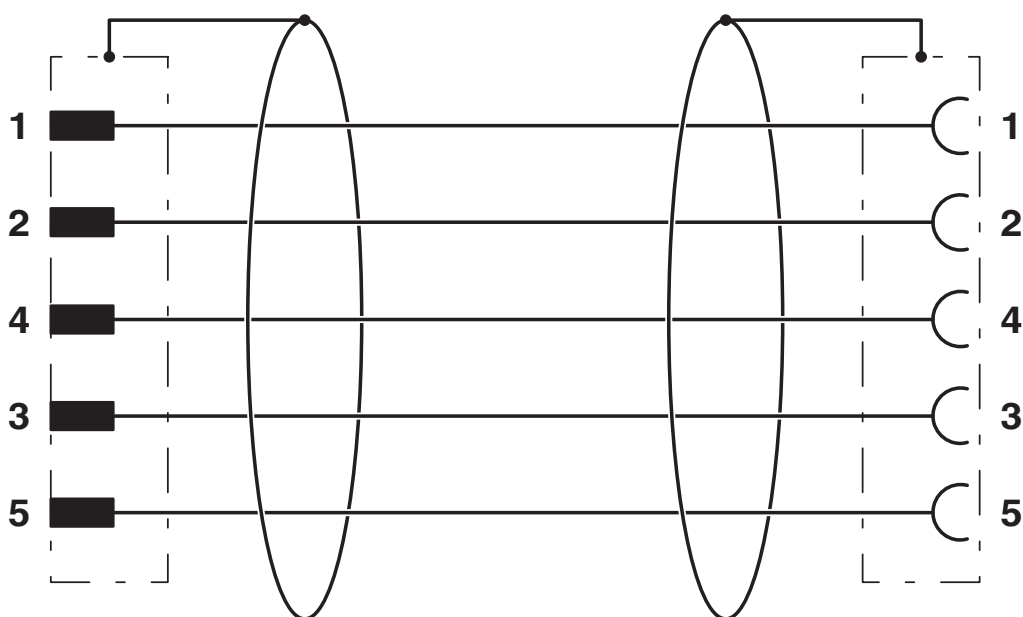
<https://www.phoenixcontact.com/in/products/1012320>

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

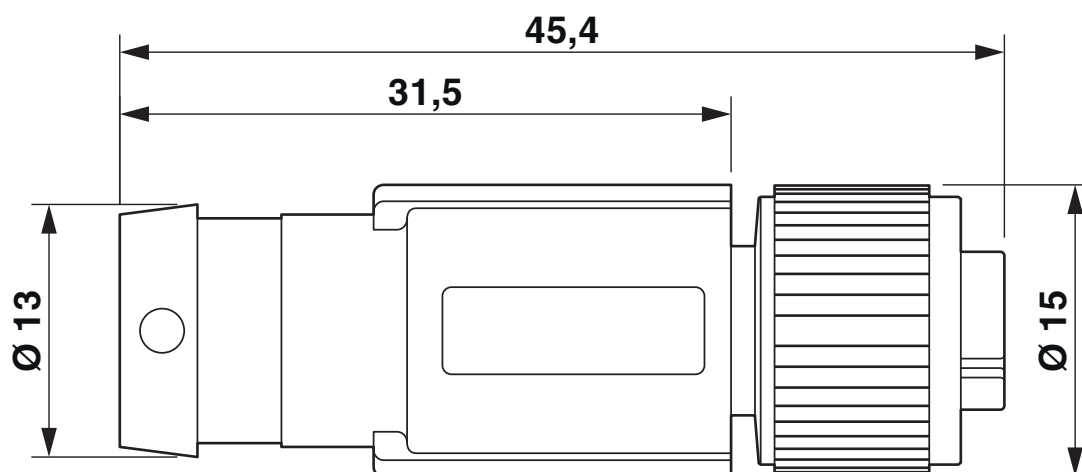
SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Dimensional drawing



M12 x 1 socket, straight, shielded

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1012320>



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	-	-

cULus Listed

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

ETIM

ETIM 9.0	EC001855
----------	----------

UNSPSC

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

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320
<https://www.phoenixcontact.com/in/products/1012320>

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%

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

Accessories

PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

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

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



SAC-M12-EXCLIP-M - Locking clip

1558988

<https://www.phoenixcontact.com/in/products/1558988>

Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

UCT-WMT (23X4) - Conductor marker

0801453

<https://www.phoenixcontact.com/in/products/0801453>



Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 30, text field height: 4 mm, text field width: 23 mm

UC-WMT (23X4) - Conductor marker

0819411

<https://www.phoenixcontact.com/in/products/0819411>



Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 24, text field height: 4 mm, text field width: 23 mm

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

US-WMT (23X4) - Cable marker

0828769

<https://www.phoenixcontact.com/in/products/0828769>



Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 56, text field height: 4 mm, text field width: 23 mm

WMTW (23X4)R - Cable marker

0831004

<https://www.phoenixcontact.com/in/products/0831004>



Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 3000, text field height: 4 mm, text field width: 23 mm

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/in/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



SAC-M12-EXCLIP-F - Locking clip

1558991

<https://www.phoenixcontact.com/in/products/1558991>

Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/in/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

TSD 04 SAC - Torque screwdriver

1208429

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



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

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/in/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/in/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

SAC-5P-M12MS/ 7,5-PUR/M12FS SH - Sensor/actuator cable



1012320

<https://www.phoenixcontact.com/in/products/1012320>

SAC BIT M12-D15 - Tool

1208432

<https://www.phoenixcontact.com/in/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

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in