

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

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, PVC, yellow, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 20 m

Commercial Data

Item number	1417905
Packing unit	1 pc
Note	Made to Order (non-returnable)
Sales Key	BF13
Product Key	BF1ICC
GTIN	4055626211251
Weight per Piece (including packing)	22.22 g
Weight per Piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	US

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Technical Data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
Application	Standard, U.S. cables
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	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
Outer sheath, material	PVC

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
-----------------------------	------------

Signaling

Status display	No
Status display present	No

Connection data

Conductor connection

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

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable

1417905

<https://www.phoenixcontact.com/us/products/1417905>

Connector

Connection 1

Type	Plug straight M12
Number of positions	5
Coding type	A
Number of positions	5


Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	A
Number of positions	5

Cable/line

Cable length	20 m
--------------	------

PVC yellow 105 °C [542]

Dimensional drawing	
Cable weight	43 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	5
Shielded	no
Cable type	PVC yellow 105 °C [542]
Conductor structure signal line	30x 1.30 mm
AWG signal line	22
Wire diameter incl. insulation	1.27 mm ±0.03 mm
External cable diameter	5.4 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	yellow
Conductor material	Tin-plated Cu litz wires
Material, filler	PP
Material wire insulation	PVC
Single wire, color	brown, blue, black, white, gray
Overall twist	5 wires around filler to the core
Max. conductor resistance	max. 50.5 Ω/km (20 °C)
Insulation resistance	≥ (550 M Ohms/m @ 500V)

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Nominal voltage, cable	300 V
Minimum bending radius, flexible installation	8 x D
Flame resistance	FT4
Other resistance	UV resistant
Special properties	UL standards PLTC and ITC
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)
	-5 °C ... 105 °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
--------------------------	-----------------

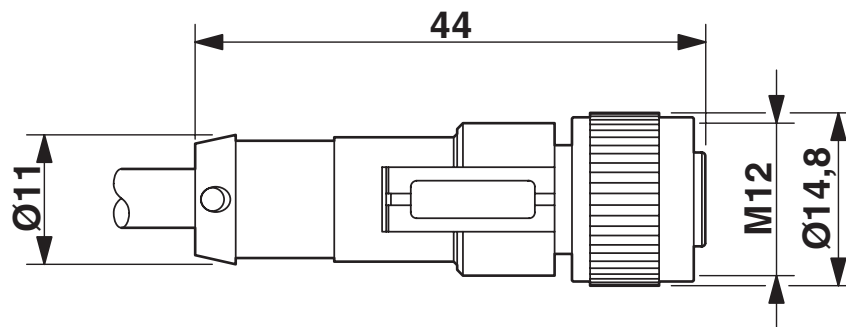
SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable

1417905

<https://www.phoenixcontact.com/us/products/1417905>

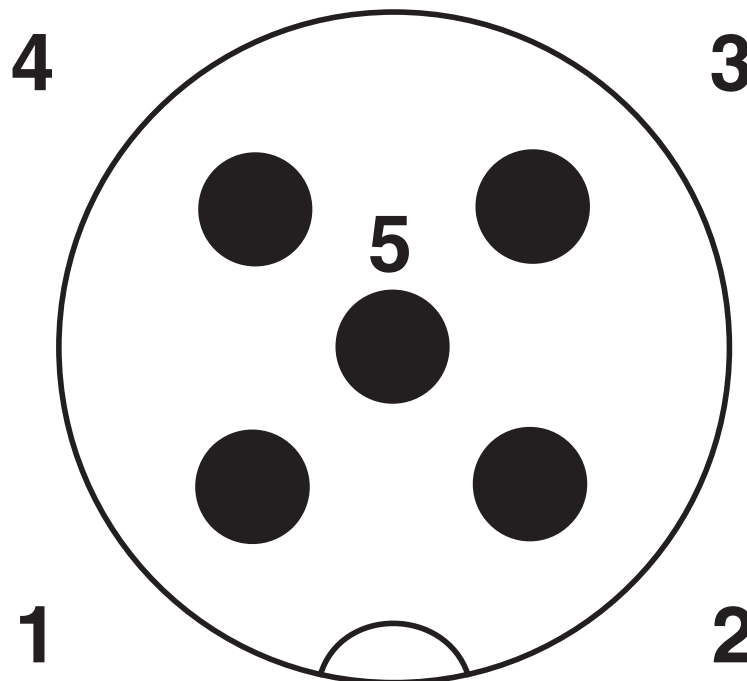
Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



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

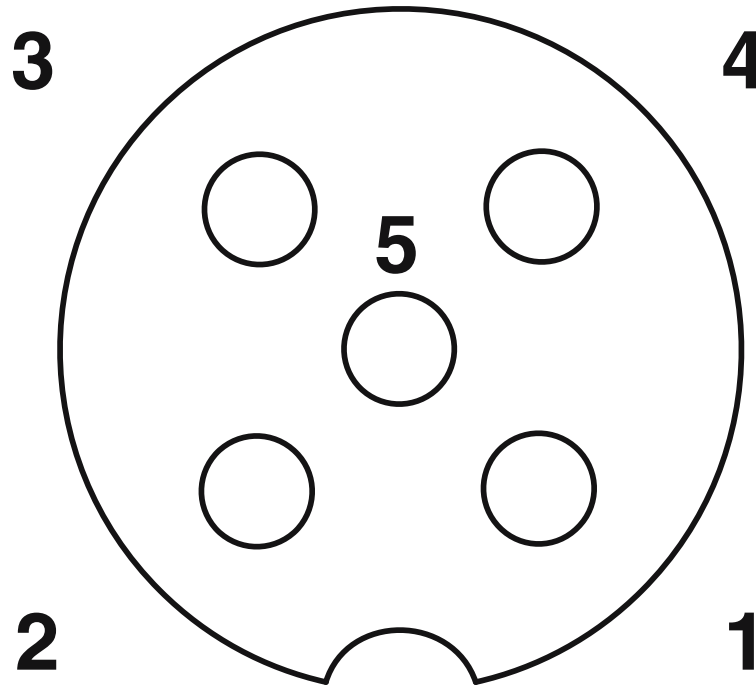
SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Schematic diagram



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

Circuit diagram



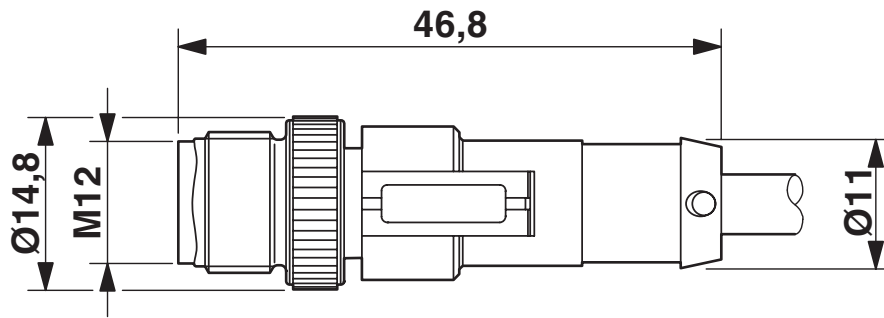
SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Dimensional drawing



Plug, M12 x 1, straight, shielded

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

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	-	-

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Classifications

ECLASS

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

ETIM

ETIM 7.0	EC001855
----------	----------

UNSPSC

UNSPSC 21.0	31251501
-------------	----------

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Environmental Product Compliance

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

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

Accessories

PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

<https://www.phoenixcontact.com/us/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/us/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/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/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/us/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/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

TSD 04 SAC - Torque screwdriver

1208429

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



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

TSD-M 1,2NM - Torque screwdriver

1212224

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



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

SAC-5P-M12MS/20,0-542/M12FS BK - Sensor/actuator cable



1417905

<https://www.phoenixcontact.com/us/products/1417905>

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

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



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

SAC BIT M12-D15 - Tool

1208432

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