

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

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, 3-position, PVC, black RAL 9005, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 1.5 m

Your advantages

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

Commercial data

Item number	1414578
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	BF1CBA
Catalog page	Page 190 (C-2-2019)
GTIN	4055626036267
Weight per piece (including packing)	61.4 g
Weight per piece (excluding packing)	56.58 g
Customs tariff number	85444290
Country of origin	DE

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

Technical data

Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	3
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

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
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

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

Type	Plug straight M12
Number of positions	3
Coding type	A

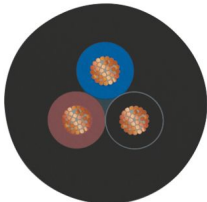
Connection 2

Type	Socket straight M12
Number of positions	3
Coding type	A

Cable/line

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

PVC black [PVC]

Dimensional drawing	
Cable weight	40 kg/km
UL AWM Style	2464 / 1729 (80°C/300 V)
Number of positions	3
Shielded	no
Cable type	PVC black [PVC]
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross section	3x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.26 mm ±0.05 mm
External cable diameter	4.30 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, blue, black
Thickness, insulation	≥ 0.23 mm (Core insulation)
Thickness, outer sheath	≥ 0.76 mm
Overall twist	3 wires, twisted
Max. conductor resistance	max. 57 Ω/km (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 2500 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

Smallest bending radius, fixed installation	22 mm
Smallest bending radius, movable installation	43 mm
Flame resistance	As per UL-Style 2464
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation)
	-10 °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

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

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable

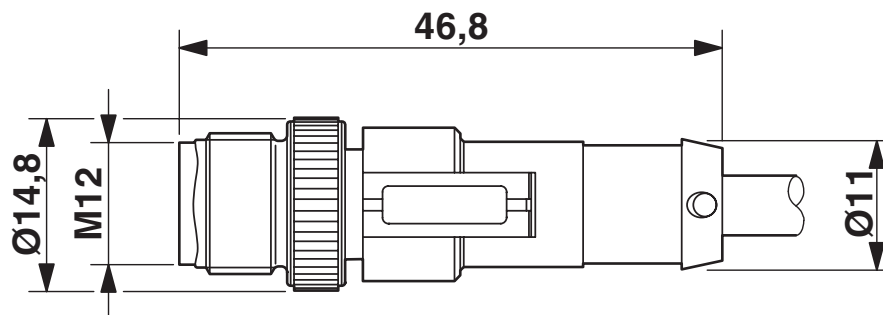


1414578

<https://www.phoenixcontact.com/us/products/1414578>

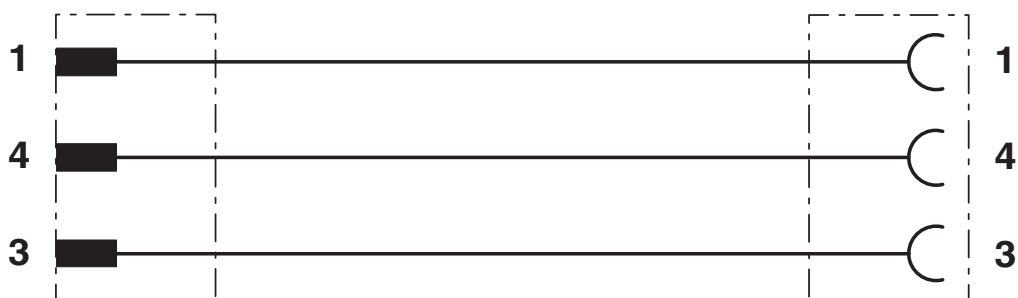
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram



SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

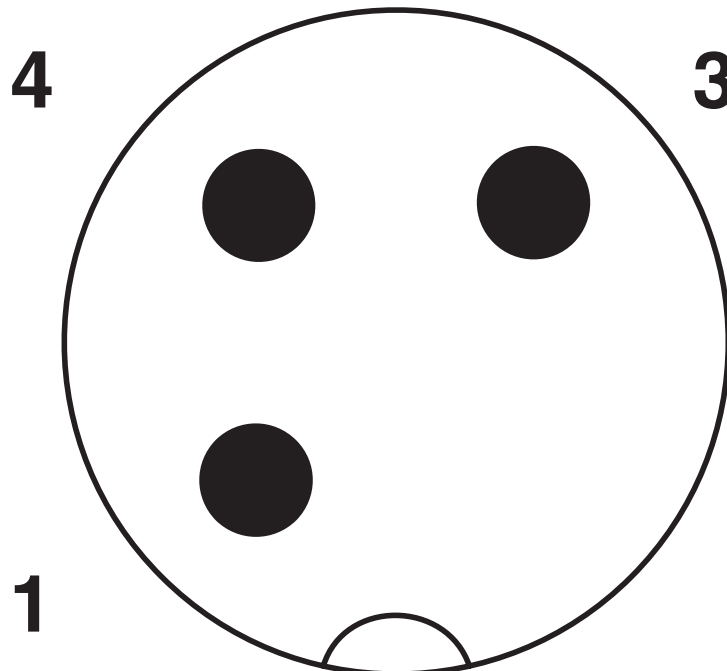
<https://www.phoenixcontact.com/us/products/1414578>

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side

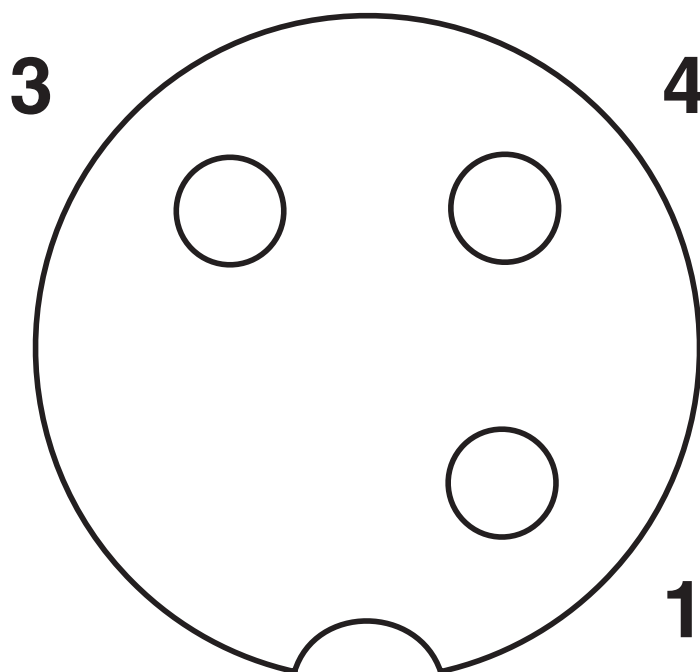
SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

Schematic diagram



Pin assignment socket M 12

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578
<https://www.phoenixcontact.com/us/products/1414578>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1414578>

	UL Listed Approval ID: FILE E 221474			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	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
	300 V	4 A	-	-

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

cULus Listed				
---------------------	--	--	--	--

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

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-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578
<https://www.phoenixcontact.com/us/products/1414578>

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-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

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-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

UCT-WMT (23X4) - Conductor marker

0801453

<https://www.phoenixcontact.com/us/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, lettering field size: 23 x 4 mm, Number of individual labels: 30

UC-WMT (23X4) - Conductor marker

0819411

<https://www.phoenixcontact.com/us/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, lettering field size: 23 x 4 mm, Number of individual labels: 24

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

US-WMT (23X4) - Cable marker

0828769

<https://www.phoenixcontact.com/us/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, lettering field size: 23 x 4 mm, Number of individual labels: 56

WMTW (23X4)R - Cable marker

0831004

<https://www.phoenixcontact.com/us/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, lettering field size: 23 x 4 mm, Number of individual labels: 3000

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

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-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

B-STIFT - Marker pen

1051993

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



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

SAC-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

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

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-3P-M12MS/1,5-PVC/M12FS - Sensor/actuator cable



1414578

<https://www.phoenixcontact.com/us/products/1414578>

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 2024 © - 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