

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

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, gray, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 20 m, Foil shielding plus drain wire

Commercial data

Item number	1095963
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF13
Product key	AF1IEC
GTIN	4055626929149
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Country of origin	US

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

Technical data

Product properties

Product type	Sensor/actuator cable
Application	Standard, U.S. cables
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

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

Connection 1

Type	Plug straight M12
Coding type	A

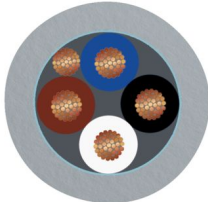
Connection 2

Type	Socket straight M12
Coding type	A

Cable/line

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

PVC, gray, 105°C [680]

Dimensional drawing	
Cable weight	45.42 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	4
Shielded	yes
Cable type	PVC, gray, 105°C [680]
AWG signal line	22
Wire diameter incl. insulation	1.27 mm ±0.03 mm
External cable diameter	5.08 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	gray
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PVC (Signal line)
Single wire, color	brown, white, blue, black
Type of pair shielding	Plastic-coated aluminum foil, aluminum side inside
Overall twist	Conductors, fillers, and drain wire are twisted with left-hand lay
Max. conductor resistance	max. 51.1 Ω/km (20 °C)
Insulation resistance	≥ (550 M Ohms/m @ 500V)
Nominal voltage, cable	300 V
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, movable installation	41 mm
Flame resistance	FT4
Other resistance	UV resistant
Special properties	UL standards PLTC and ITC

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed 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)

Standards and regulations

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

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable

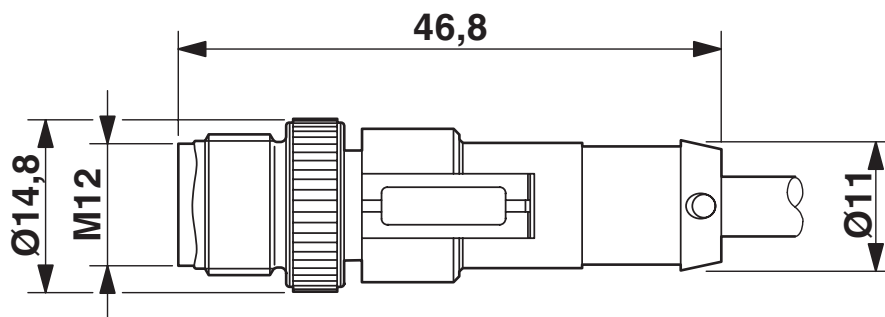


1095963

<https://www.phoenixcontact.com/us/products/1095963>

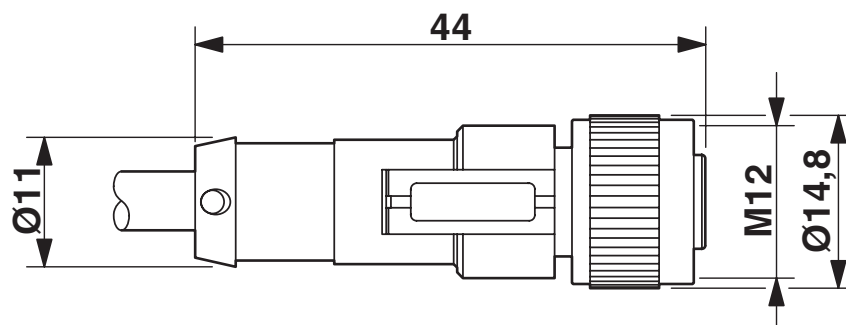
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

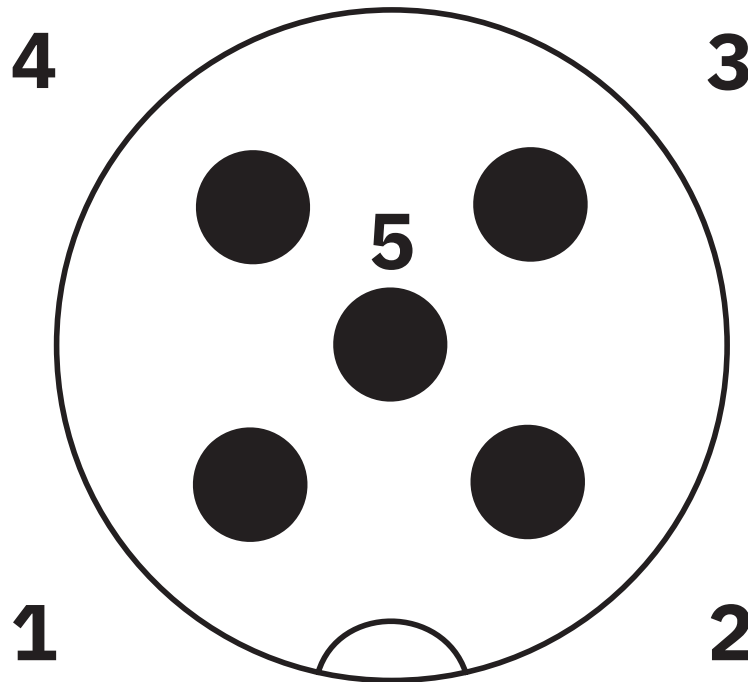
SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

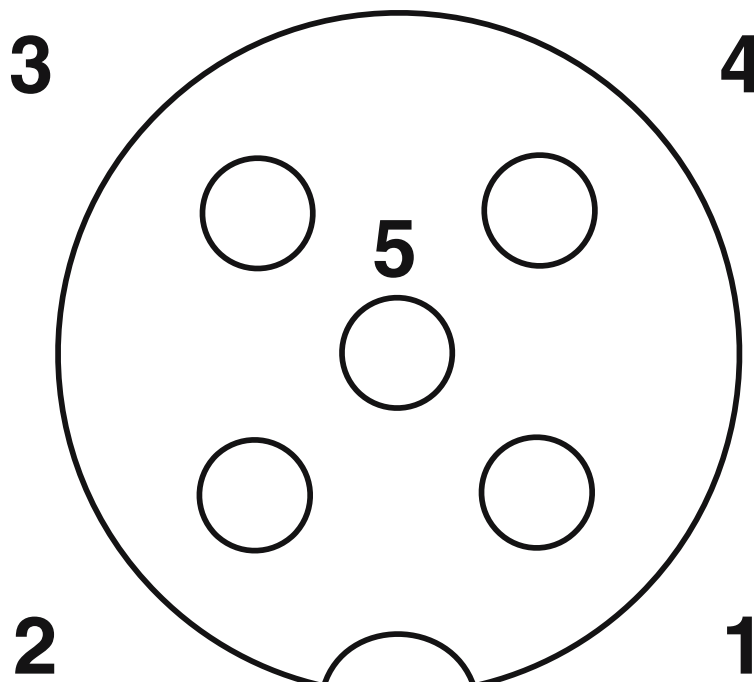
<https://www.phoenixcontact.com/us/products/1095963>

Schematic diagram



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

Schematic diagram



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

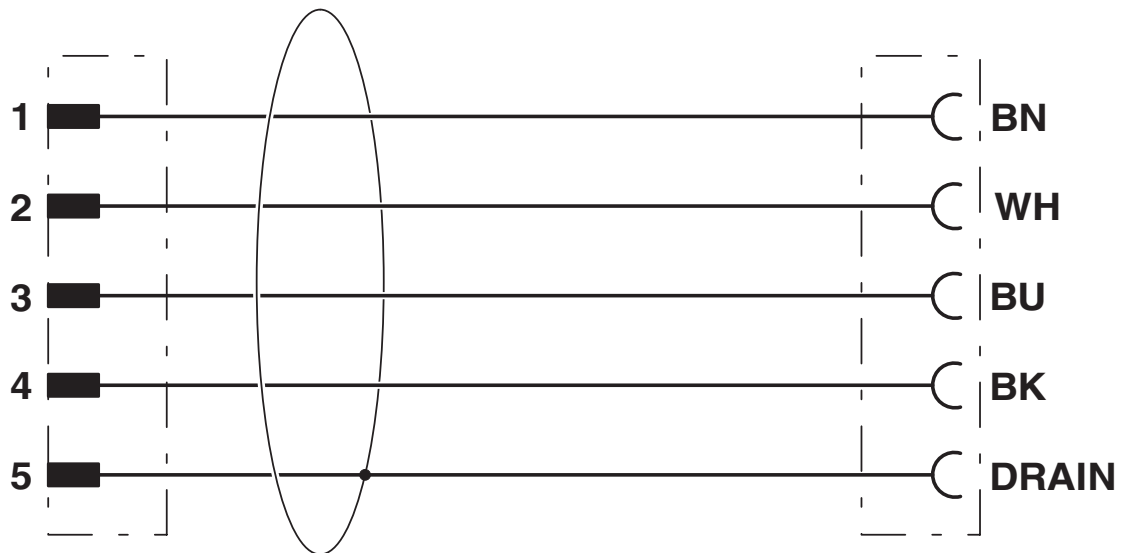
SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable





1095963

<https://www.phoenixcontact.com/us/products/1095963>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1095963>

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

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

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

UNSPSC

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

SAC-5P-M12MS/20,0-680/M12FS FDP - Sensor/actuator cable



1095963

<https://www.phoenixcontact.com/us/products/1095963>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

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