

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

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: 3 m, Foil shielding plus drain wire

## Commercial data

Item number	1095850
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF13
Product key	AF1IEC
GTIN	4055626928012
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Country of origin	US

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

## 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	$\geq 100$
-----------------------------	------------

### 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/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

Type	Plug straight M12
Coding type	A

## Connection 2

Type	Socket straight M12
Coding type	A

## Cable/line

Cable length	3 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
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)

## Environmental and real-life conditions

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

## 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/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

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

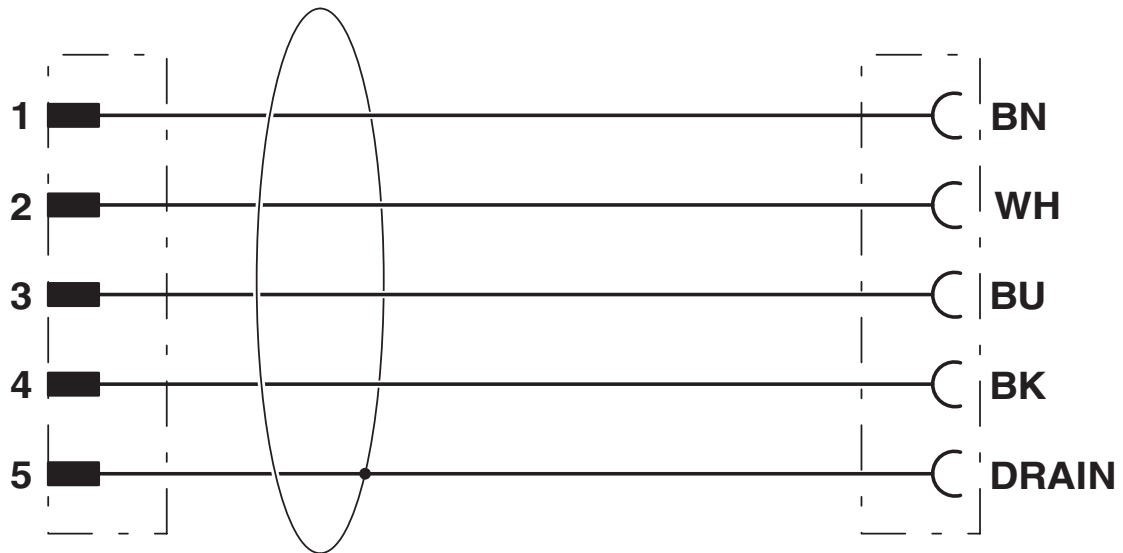
# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1095850>

 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	125 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	125 V	4 A	-	-

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
-----------	----------

### UNSPSC

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

# SAC-5P-M12MS/3,0-680/M12FS FDP - Sensor/actuator cable



1095850

<https://www.phoenixcontact.com/us/products/1095850>

## 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 2026 © - 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](mailto:info@phoenixcon.com)