

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

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, 4-position, PVC, gray, shielded, Plug straight M8, coding: A, on Socket straight M8, coding: A, cable length: 0.5 m, Foil shielding plus drain wire

Commercial data

Item number	1096003
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF13
Product key	AF1IEF
GTIN	4055626929545
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-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

Technical data

Product properties

Product type	Sensor/actuator cable
Application	Standard, U.S. cables
Number of positions	4
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	0.2 Nm (M8 connectors)
-------------------	------------------------

Connector

Connection 1

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

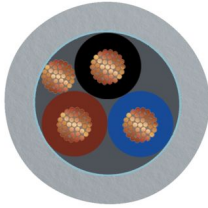
<https://www.phoenixcontact.com/us/products/1096003>

Type	Plug straight M8
Coding type	A

Connection 2

Type	Socket straight M8
Coding type	A

Cable/line

Cable length	0.5 m
Dimensional drawing	
Cable weight	26.04 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	3
Shielded	yes
AWG signal line	24
Wire diameter incl. insulation	1.12 mm ±0.03 mm
External cable diameter	4.17 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, 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. 80.2 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	34 mm
Flame resistance	FT4
Other resistance	UV resistant
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

	IP68
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)
Ambient temperature (operation) (Cable, flexible installation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable

1096003

<https://www.phoenixcontact.com/us/products/1096003>

Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



Socket M8 x 1, straight

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable

1096003

<https://www.phoenixcontact.com/us/products/1096003>

Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

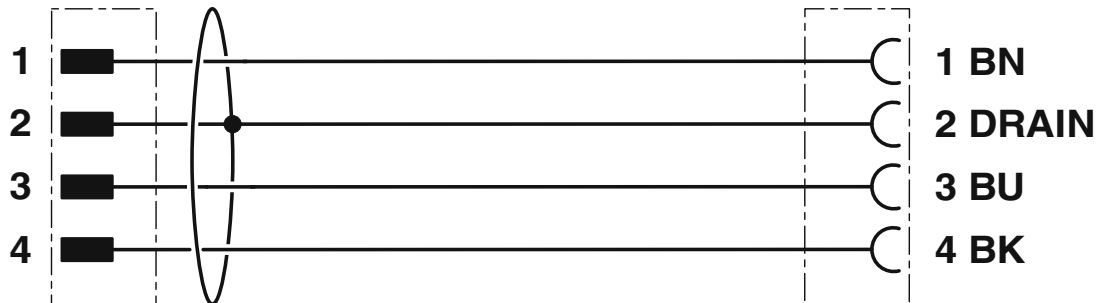
SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

Circuit diagram



Contact assignment of M8 plugs/sockets

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1096003>

 UL Listed Approval ID: FILE E 221474				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 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				
	30 V	4 A	-	-

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

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

UNSPSC

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

SAC-4P-M8MS/0,5-680/M8FS FDP - Sensor/actuator cable



1096003

<https://www.phoenixcontact.com/us/products/1096003>

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%
-------------------------------------	----------------------------

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