

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

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, PUR halogen-free, black-gray RAL 7021, Plug angled M8, on free cable end, cable length: 5 m

Your advantages

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

Commercial Data

Item number	1681839
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1BCA
Product Key	BF1BCA
Catalog Page	Page 194 (C-2-2019)
GTIN	4017918158491
Weight per Piece (including packing)	113 g
Weight per Piece (excluding packing)	107.1 g
Customs tariff number	85444290
Country of origin	DE

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

Technical Data

Product properties

Product type	Sensor/actuator cable
Number of positions	4
Application	Standard
No. of cable outlets	1
Shielded	no
Coding	A - standard

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
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

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

LED signaling

Status display	No
Status display present	No

Connection data

Conductor connection

Tightening torque	0.2 Nm (M8 connectors)
-------------------	------------------------

Connector

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

Connection 1

Head design	Plug
Head cable outlet	angled
Head thread type	M8

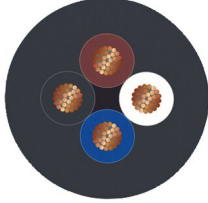
Connection 2

Head design	free cable end
-------------	----------------

Cable / line

Cable length	5 m
--------------	-----

PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	23 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	4x 0.25 mm ² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm (Signal line)
External cable diameter	3.95 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation) approx. 0.5 mm (Outer cable sheath)
Overall twist	4 wires, twisted
Max. conductor resistance	max. 78 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	40 mm

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

Max. bending cycles	10000000
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2 DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents hydrolysis and microbe resistant partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Special properties	Flexible cable conduit capable Silicone-free Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -25 °C ... 80 °C (Cable, flexible installation)

Ambient conditions

Degree of protection	IP65 IP67 IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket) -40 °C ... 80 °C (cable, fixed installation) -5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

Standards/specifications	IEC 61076-2-104
--------------------------	-----------------

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR

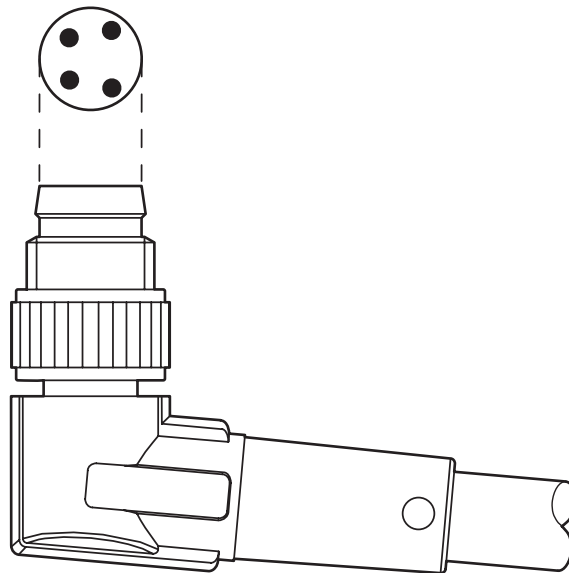


1681839

<https://www.phoenixcontact.com/gb/products/1681839>

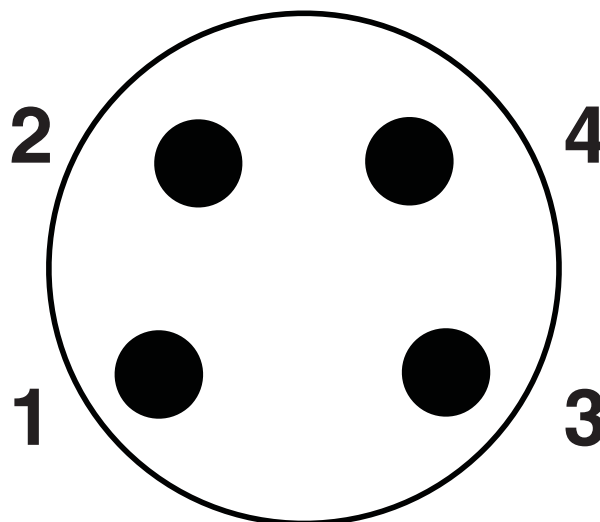
Drawings

Schematic diagram



Layout of connector pin assignments

Schematic diagram



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

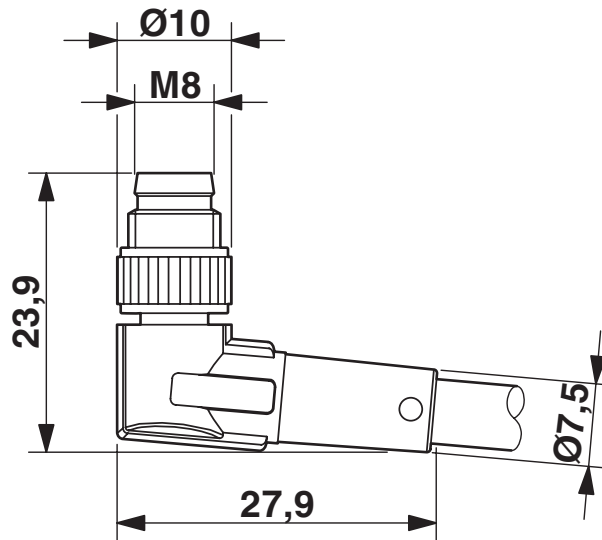
Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

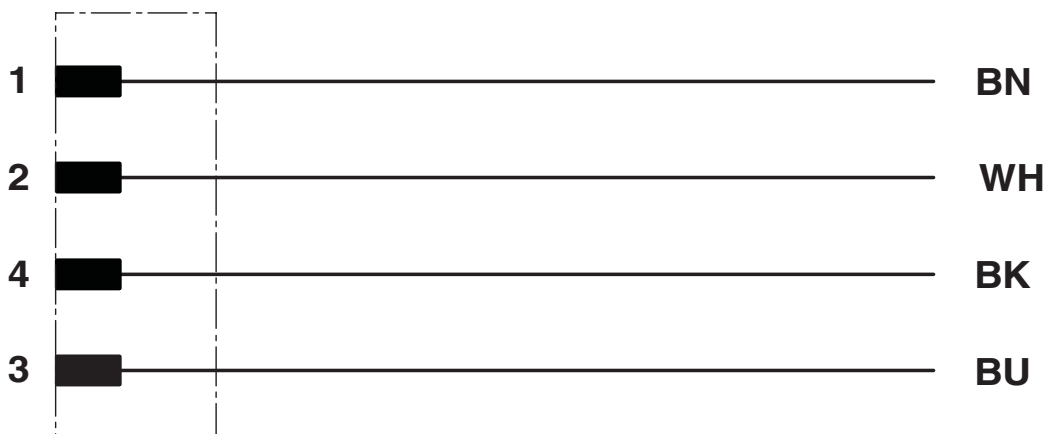
<https://www.phoenixcontact.com/gb/products/1681839>

Dimensional drawing



M8 x 1 male plug, angled version

Circuit diagram



Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

Approvals

**UL Listed**

Approval ID: FILE E 221474

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	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
	30 V	4 A	-	-

**EAC**

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

cULus Listed

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

Classifications

ECLASS

ECLASS-9.0	27060311
ECLASS-10.0.1	27060311
ECLASS-11.0	27060311

ETIM

ETIM 8.0	EC001855
----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

Sensor/actuator cable - SAC-4P-M 8MR/5,0-PUR



1681839

<https://www.phoenixcontact.com/gb/products/1681839>

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk



**SCATTERGOOD
& JOHNSON LTD**
ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product manufacturers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

www.scatts.co.uk