

# SAC-8P-M 8MS/ 5,0-PUR - Sensor/actuator cable



1404181

<https://www.phoenixcontact.com/us/products/1404181>

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, coding: A, on free cable end, cable length: 5 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Save space – with high-pos. connectors

## Commercial data

Item number	1404181
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF01
Product key	AF1BGA
GTIN	4046356680943
Weight per piece (including packing)	163.7 g
Weight per piece (excluding packing)	159.4 g
Customs tariff number	85444290
Country of origin	PL

## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	8
No. of cable outlets	1
Shielded	no
Coding	A

### Insulation characteristics

Degree of pollution	3
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### 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

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	1.5 A

### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	$\geq 100$

### Signaling

Status display	no
Status display present	no

### Connection data

Conductor connection	
Tightening torque	0.2 Nm (M8 connectors)

### Connector

Connection 1	
Type	Plug straight M8
Number of positions	8

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Coding type

A

Connection 2

Type

free cable end

Cable/line

Cable length

5 m

PUR halogen-free black [PUR]

Dimensional drawing



Cable weight

31.4 kg/km

UL AWM Style

20549

Number of positions

8

Shielded

no

Cable type

PUR halogen-free black [PUR]

Conductor structure signal line

18x 0.10 mm

AWG signal line

26

Conductor cross section

8x 0.14 mm<sup>2</sup> (Signal line)

Wire diameter incl. insulation

1 mm ±0.02 mm (Signal line)

External cable diameter

5.10 mm ±0.15 mm

Outer sheath, material

PUR

External sheath, color

black-gray RAL 7021

Conductor material

Bare Cu litz wires

Material, filler

PE

Material wire insulation

PP

Single wire, color

white, brown, green, yellow, gray, pink, blue, red

Thickness, insulation

≥ 0.21 mm (Signal line)

≥ 0.38 mm (Outer cable sheath)

Overall twist

8 wires around filler to the core

Length of twist, overall twist

58 mm

Max. conductor resistance

139 Ω/km (at 20 °C)

Insulation resistance

1 GΩ\*km (at 20 °C)

Nominal voltage, cable

≤ 300 V AC

Test voltage

≥ 3000 V AC (Spark test)

Minimum bending radius, fixed installation

5 x D

Minimum bending radius, flexible installation

10 x D

Smallest bending radius, fixed installation

25.5 mm

Smallest bending radius, movable installation

51 mm

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Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 51 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with DIN EN 50267-2-1
Resistance to oil	according to UL 758/1581 (horizontal)
Other resistance	in accordance with UL 758/1581 FT2
	According to DIN EN 60811-2-1, 168 h at 100°C
Ambient temperature (operation)	hydrolysis and microbe resistant
	Resistant to salt water
	Low adhesion
	abrasion-resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)

## Standards and regulations

M8

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

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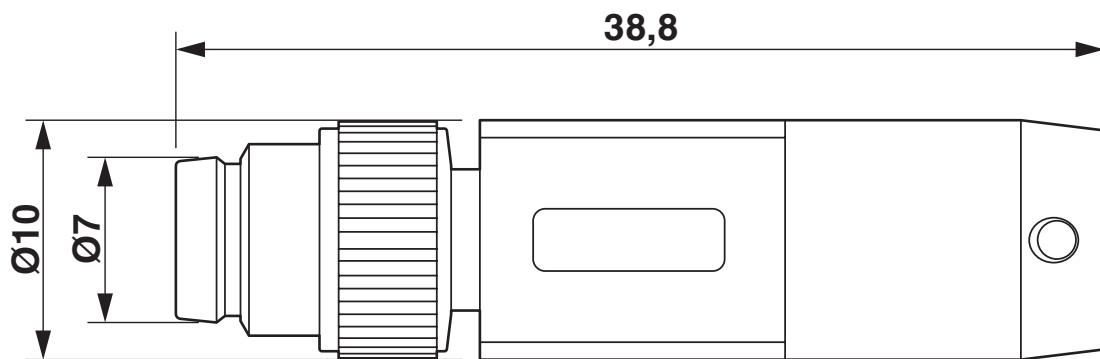
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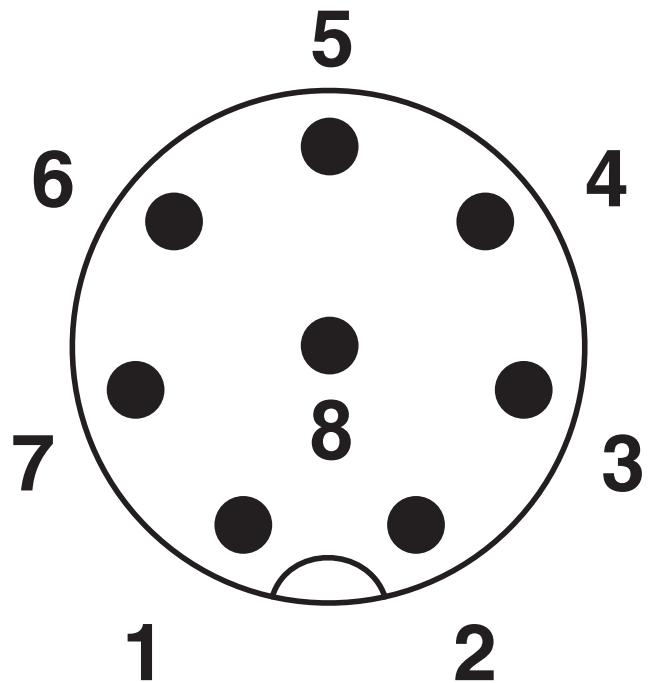
## Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Schematic diagram



M8 plug pin assignment, 8-pos., view of pin side

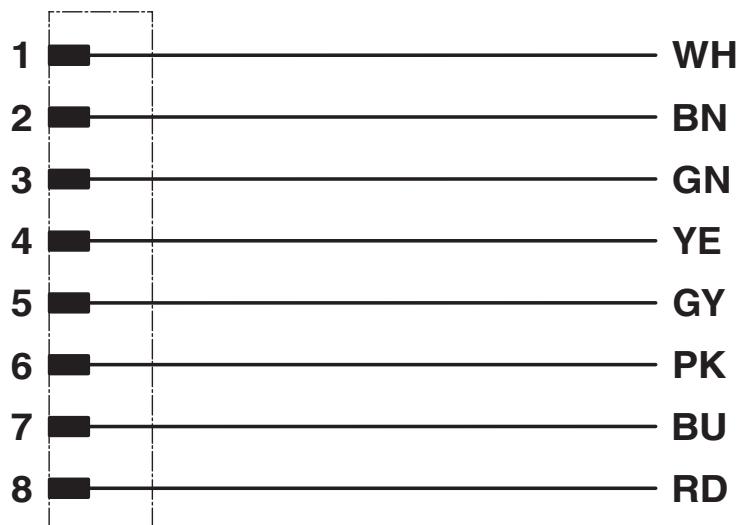
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Circuit diagram



Contact assignment of the M8 plug

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1404181>

UL Listed		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine					
		30 V	1.5 A	-	-

cUL Listed		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine					
		30 V	1.5 A	-	-

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

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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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### EF3.0 Climate Change

CO2e kg	2.334 kg CO2e
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