

# SAC-8P-M 8MS/10,0-PUR SH - Sensor/actuator cable



1404138

<https://www.phoenixcontact.com/us/products/1404138>

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded (Tinned copper braided shield), Plug straight M8, coding: A, on free cable end, cable length: 10 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Save space – with high-pos. connectors
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial data

Item number	1404138
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF01
Product key	BF1BNA
Catalog page	Page 210 (C-2-2019)
GTIN	4046356680585
Weight per piece (including packing)	475.9 g
Weight per piece (excluding packing)	242.9 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	yes
Coding	A

### Insulation characteristics

Degree of pollution	3
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### 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 $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	1.5 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
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### Signaling

Status display	No
Status display present	No

### Connection data

#### Conductor connection

Tightening torque	0.2 Nm (M8 connectors)
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### Connector

#### Connection 1

Type	Plug straight M8
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Number of positions	8
Coding type	A


## Connection 2

Type	free cable end
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## Cable/line

Cable length	10 m
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## PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	45 kg/km
UL AWM Style	20549
Number of positions	8
Shielded	yes
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	5.90 mm ±0.2 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
Optical shield covering	85 %
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)
Test voltage Core/Shield	≥ 2000.00 V AC (for 60 s)
Smallest bending radius, fixed installation	29.5 mm

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Smallest bending radius, movable installation	59 mm
Max. bending cycles	2000000
Halogen-free	in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1
Flame resistance	according to UL 758/1581 (horizontal) in accordance with UL 758/1581 FT2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	hydrolysis and microbe resistant Resistant to salt water Low adhesion abrasion-resistant partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Ambient temperature (operation)	-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
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)

## Standards and regulations

### M8

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

# SAC-8P-M 8MS/10,0-PUR SH - Sensor/actuator cable

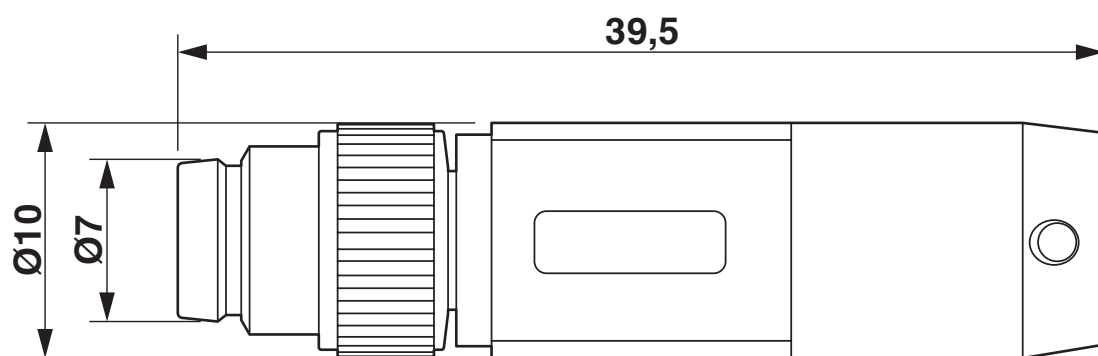


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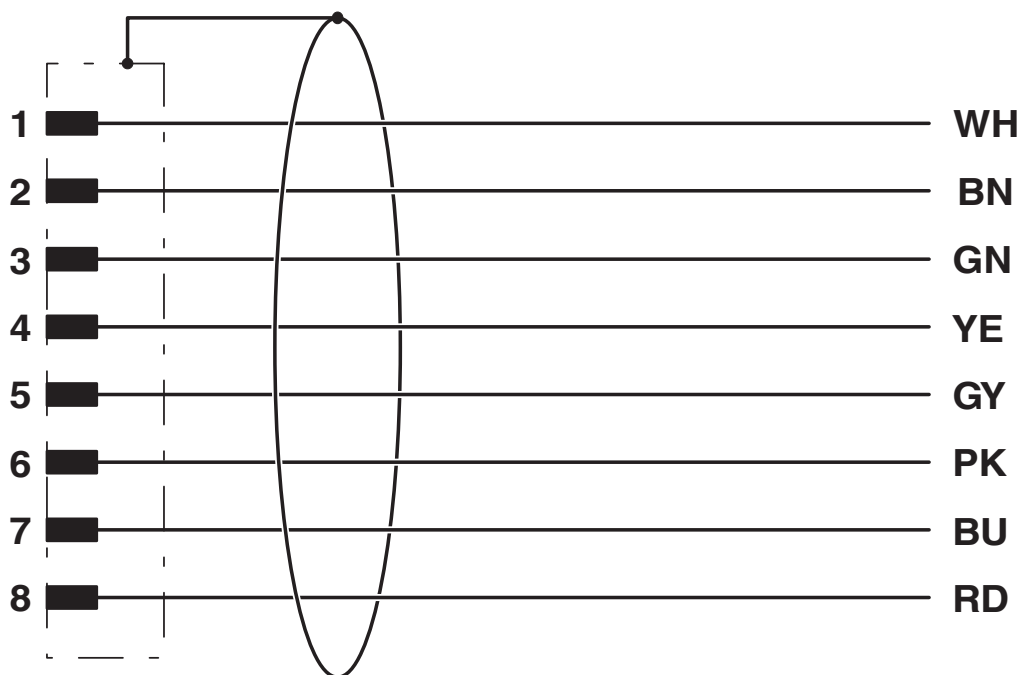
## Drawings

Dimensional drawing



M8 x 1 male plug, straight version

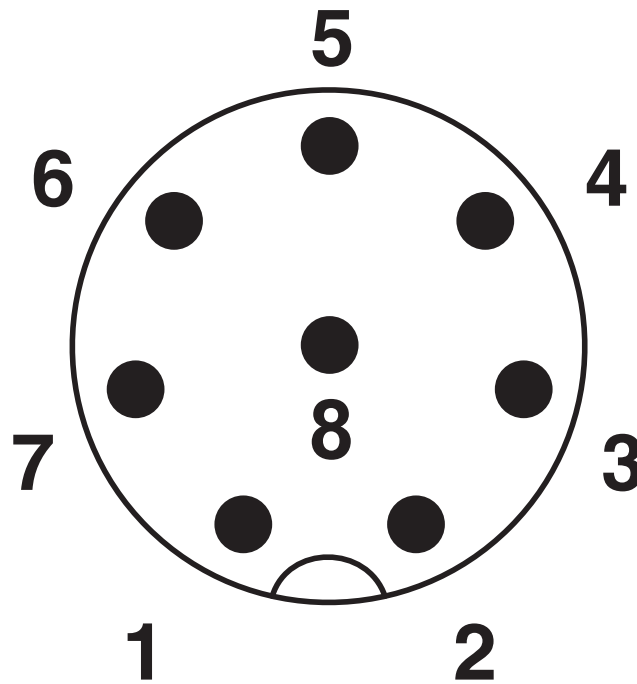
Circuit diagram



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Schematic diagram



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

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1404138>

	<b>UL Listed</b> Approval ID: FILE E 221474			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
	30 V	1.5 A	-	-

	<b>cUL Listed</b> Approval ID: FILE E 221474			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
	30 V	1.5 A	-	-

	<b>EAC-RoHS</b> Approval ID: RU D-DE.HB35.B.00387			

<b>cULus Listed</b>
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## Classifications

### ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	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
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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## Accessories

### PROT-M 8 FS-PA-CHAIN - Sealing cap

1430857

<https://www.phoenixcontact.com/us/products/1430857>

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs



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### WP-CTA POM 13,0 BK - Protective hose adapter

1422884

<https://www.phoenixcontact.com/us/products/1422884>

Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel



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## WP-PA HF 13,0 BK - Protective hose

3240681

<https://www.phoenixcontact.com/us/products/3240681>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

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## WP-PA HF-HB 13,0 BK - Protective hose

3240839

<https://www.phoenixcontact.com/us/products/3240839>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

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## TSD 02 SAC - Torque screwdriver

1208487

<https://www.phoenixcontact.com/us/products/1208487>



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

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## SAC BIT M8-D10 - Tool

1208461

<https://www.phoenixcontact.com/us/products/1208461>



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive

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## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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## CUTFOX-S VDE - Diagonal cutter

1212207

<https://www.phoenixcontact.com/us/products/1212207>



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

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## WIREFOX SAC-1 - Stripping tool

1212757

<https://www.phoenixcontact.com/us/products/1212757>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

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## WIREFOX SAC - Stripping tool

1212623

<https://www.phoenixcontact.com/us/products/1212623>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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## WIREFOX 10 - Stripping tool

1212150

<https://www.phoenixcontact.com/us/products/1212150>



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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