

# SAC-8P- 1,5-PUR/M 8FS SH - Sensor/actuator cable



1404147

<https://www.phoenixcontact.com/us/products/1404147>

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket straight M8, coding: A, cable length: 1.5 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	1404147
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	AF1BNA
GTIN	4046356680653
Weight per piece (including packing)	78.6 g
Weight per piece (excluding packing)	77.3 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	$\geq 100$

### Signaling

Status display	no
Status display present	no

### Connection data

Conductor connection	
Tightening torque	0.2 Nm (M8 connectors)

### Connector

Connection 1	
Type	free cable end

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## Connection 2

Type	Socket straight M8
Number of positions	8
Coding type	A

## Cable/line

Cable length	1.5 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
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 59 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥1000000, Torsional frequency: 35 cycles/min.
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) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)

## Standards and regulations

M8

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

# SAC-8P- 1,5-PUR/M 8FS SH - Sensor/actuator cable

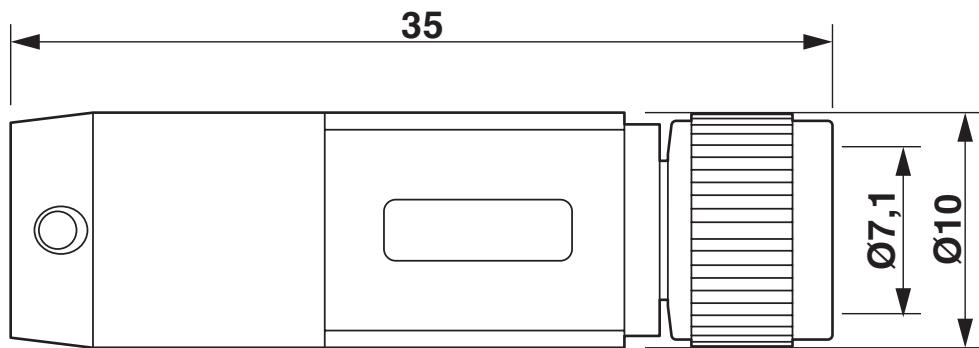
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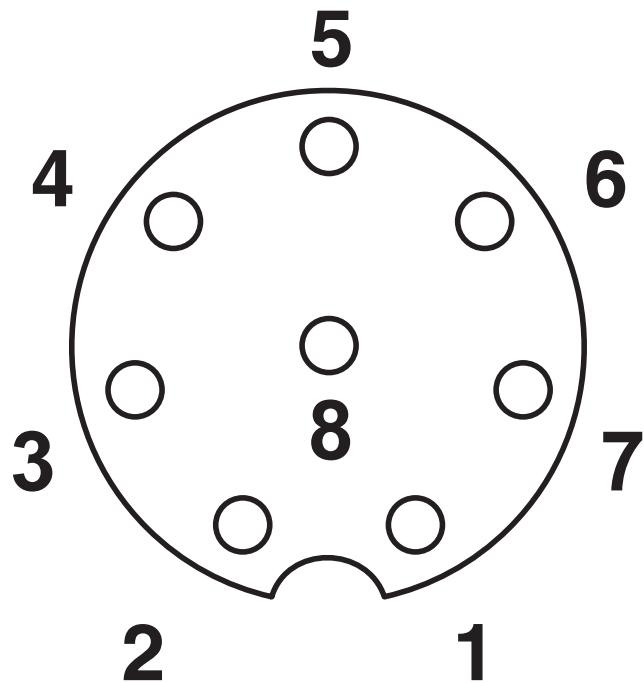
## Drawings

Dimensional drawing



Socket M8 x 1, straight

Schematic diagram



Connector pin assignment of M8 socket, 8-pos., view of socket side

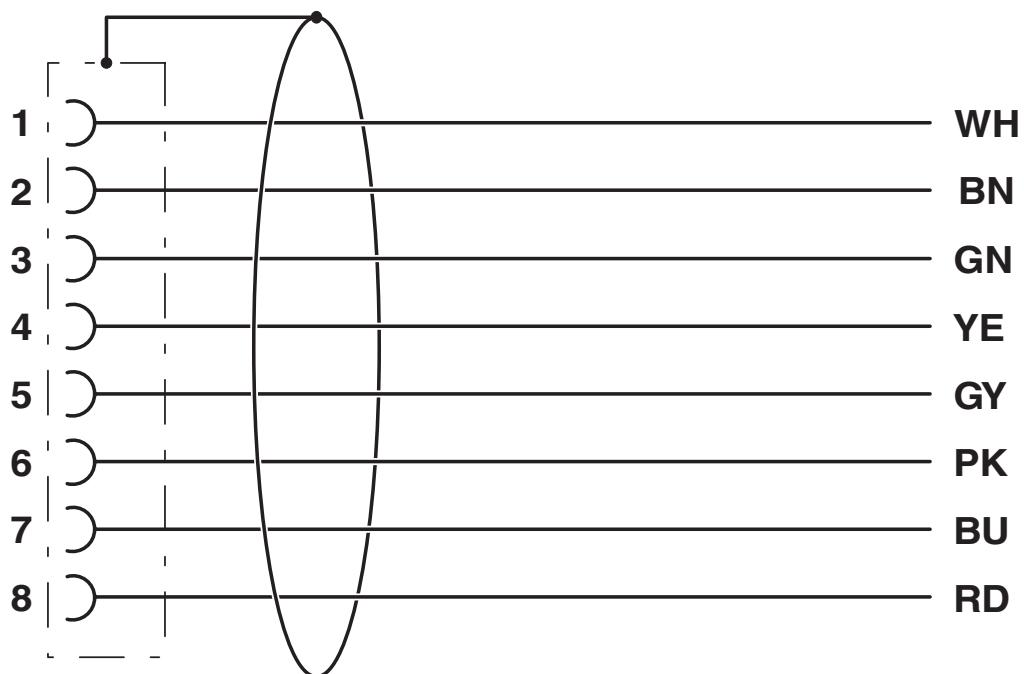
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Circuit diagram



Contact assignment of M8 socket

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## Approvals

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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					
ER	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	1.739 kg CO2e
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