

# SAC-8P-8,2-850/M12FS HN-MD - Sensor/actuator cable



1403871

<https://www.phoenixcontact.com/us/products/1403871>

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Sensor/actuator cable, 8-pos., PUR halogen-free, gray-black, RAL 9005, shielded, free cable end, to straight M12 socket, A-coded, cable length: 8.2 m, customer version

As in the figure, but with a black handle

## Commercial data

Item number	1403871
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	AF1CMA
GTIN	4046356671941
Weight per piece (including packing)	458.7 g
Weight per piece (excluding packing)	444.5 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Sensor/actuator cable
Number of positions	8
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	CuZn
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 $I_N$	2 A

### Mechanical properties

#### Mechanical data

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

Status display	no
Status display present	no

### Connector

#### Connection 1

Type	free cable end
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#### Connection 2

Type	Socket straight M12
Number of positions	8
Coding type	A

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## Cable/line

Cable length	8.2 m
PUR halogen-free black [850]	
Number of positions	8
Shielded	yes
Cable type	PUR halogen-free black [850]
Conductor structure signal line	19x 0.10 mm
AWG signal line	26
Conductor structure, voltage supply	45x 0.10 mm
AWG power supply	22
Conductor cross-section	4x 0.14 mm <sup>2</sup> (Signal line) 4x 0.34 mm <sup>2</sup> (Power supply)
Wire diameter incl. insulation	1 mm (Signal line) 1.1 mm (Power supply)
External cable diameter	6 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Tin-plated Cu litz wires
Material, filler	PE + filler yarn
Material wire insulation	Foamed PE (Signal line) TPE (Power supply)
Single wire, color	yellow, gray, violet, pink, white-green, brown-green, white, blue
Thickness, insulation	≥ 0.38 mm (Outer cable sheath)
Optical shield covering	85 %
Max. conductor resistance	≤ 134 mΩ/m (Signal line) ≤ 55 mΩ/m (Power supply)
Insulation resistance	> 200 MΩ*km
Working capacitance	≤ 40 pF (Signal line)
Nominal voltage, cable	30 V
Test voltage Core/Core	500 V AC (at 50 Hz)
Test voltage Core/Shield	500.00 V AC (at 50 Hz)
Smallest bending radius, fixed installation	≥ 20 mm
Smallest bending radius, movable installation	≥ 75 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 75 mm
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -10 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65 IP67 IP68
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Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-10 °C ... 80 °C (Cable, flexible installation)

## Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

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## Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

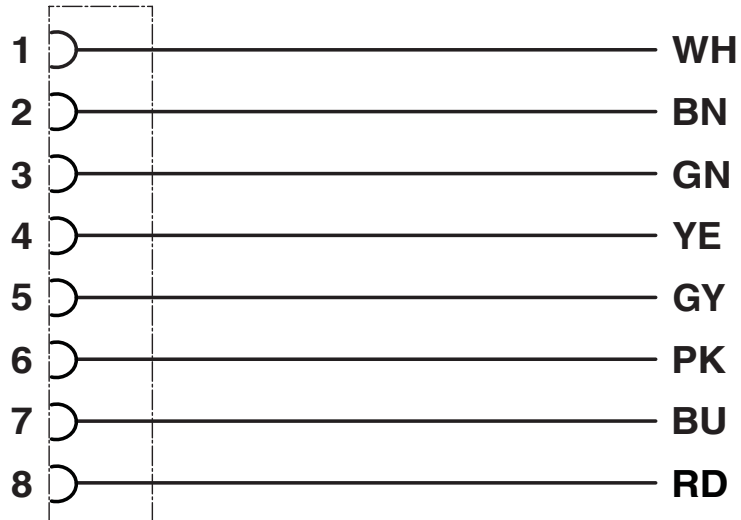
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Circuit diagram



Contact assignment of the M12 socket

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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

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