

# SAC-8P-M12MS/ 8,0-285/M12FS SH - Sensor/actuator cable



1545620

<https://www.phoenixcontact.com/us/products/1545620>

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Sensor/actuator cable, 8-position, PUR, highly flexible, gray RAL 7001, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 8 m

as in the figure, but with a gray conductor

## Commercial data

Item number	1545620
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Product key	AF1CMA
GTIN	4067923020054
Weight per piece (including packing)	637 g
Weight per piece (excluding packing)	22.22 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
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	Plug straight M12
Number of positions	8
Coding type	A

#### Connection 2

Type	Socket straight M12
Number of positions	8

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Coding type	A
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## Cable/line

Cable length	8 m
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PUR, gray, shielded [285]

Dimensional drawing	
Number of positions	8
Shielded	yes
Cable type	PUR, gray, shielded [285]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross-section	4x 2x 0.25 mm <sup>2</sup> (Signal line) 1x 0.25 mm <sup>2</sup> (Drain wire)
External cable diameter	7.60 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PES
Single wire, color	white-brown, green-yellow, gray-pink, blue-red
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Optical shield covering	85 %
Insulation resistance	≥ 100 MΩ*km
Nominal voltage, cable	350 V
Test voltage	1200 V
Minimum bending radius, flexible installation	7.5 x D
Smallest bending radius, movable installation	57 mm
Dynamic load capacity (bending)	Max. bending cycles: 3000000, Bending radius: 100 mm, Traversing path: 1.2 m, Traversing rate: 1.4 m/s, Acceleration: 2 m/s <sup>2</sup>
Resistance to oil	very good oil and chemical resistance
Other resistance	Ozone and UV resistant Low adhesion abrasion-resistant notch tough
Ambient temperature (operation)	-50 °C ... 80 °C (cable, fixed installation) -40 °C ... 80 °C (Cable, flexible installation)

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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

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## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

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Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

Schematic diagram



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

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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## Approvals

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 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	300 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	300 V	4 A	-	-

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

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
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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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