

# SAC-4P-45,0-500/M12FS SH - Sensor/actuator cable



1006687

<https://www.phoenixcontact.com/us/products/1006687>

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Sensor/actuator cable, 4-position, PVC, gray RAL 7001, shielded (Advanced Shielding Technology), free cable end, on Socket straight M12, coding: A, cable length: 45 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial data

Item number	1006687
Packing unit	1 pc
Minimum order quantity	25 pc
Note	Made to order (non-returnable)
Product key	AF1CJA
GTIN	4055626477947
Weight per piece (including packing)	2,329.8 g
Weight per piece (excluding packing)	2,503.8 g
Country of origin	PL

## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	4
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	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 $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	4 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	0.4 Nm (M12 connector)
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### Connector

#### Connection 1

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Type	free cable end
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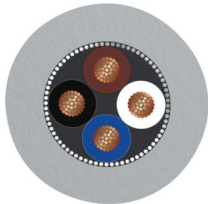
## Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	A

## Cable/line

Cable length	45 m
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## PVC gray [500]

Dimensional drawing	
Cable weight	57 kg/km
Number of positions	4
Shielded	yes
Cable type	PVC gray [500]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	0.34 mm²
Wire diameter incl. insulation	1.4 mm ±0.02 mm
External cable diameter	5.9 mm 5.90 mm
Outer sheath, material	PVC
External sheath, color	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.23 mm (Core insulation) ≥ 0.76 mm (Outer cable sheath)
Overall twist	4 wires, twisted
Optical shield covering	85 %
Max. conductor resistance	max. 58 Ω/km
Insulation resistance	≥ 1 GΩ*km
Nominal voltage, cable	300 V
Test voltage	3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Resistance to oil	in accordance with DIN EN 60811-2-1

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Special properties	Free of substances which would hinder coating with paint or varnish
	Silicone-free
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

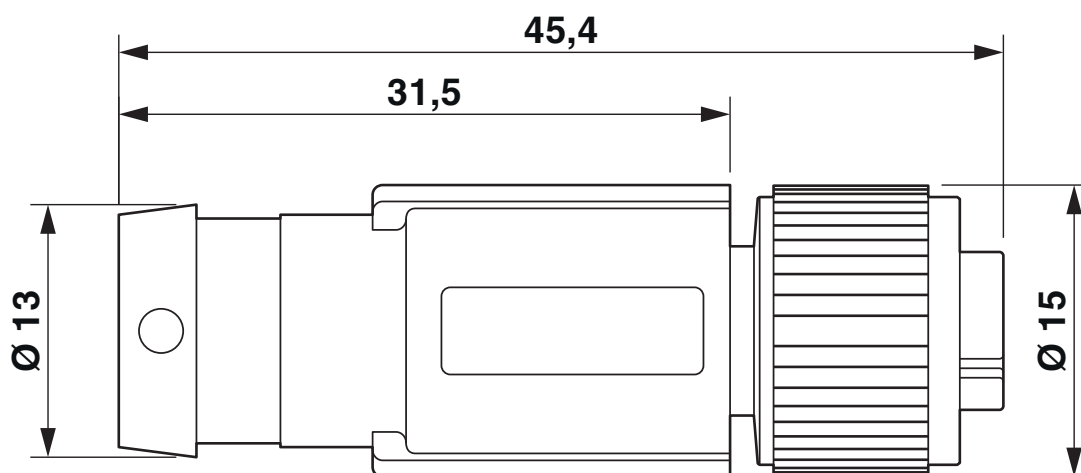
## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

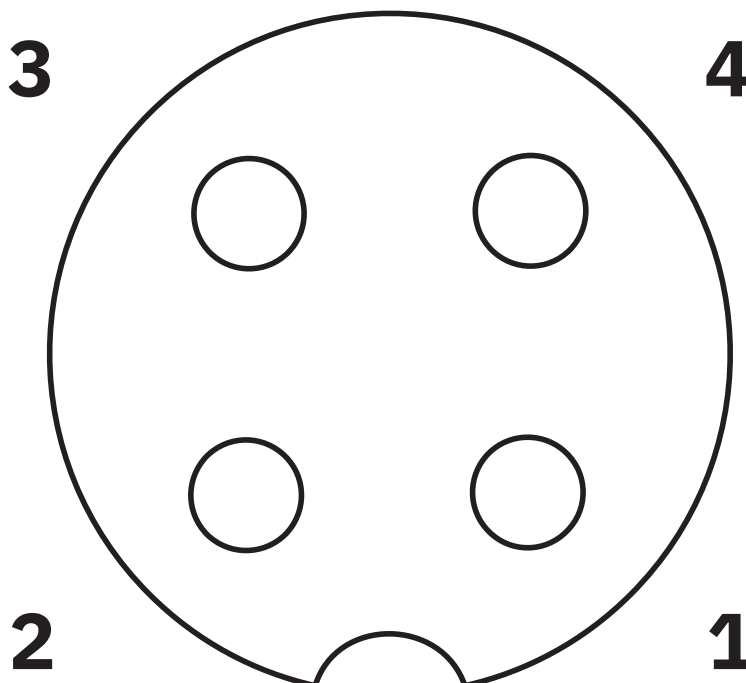
## Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram

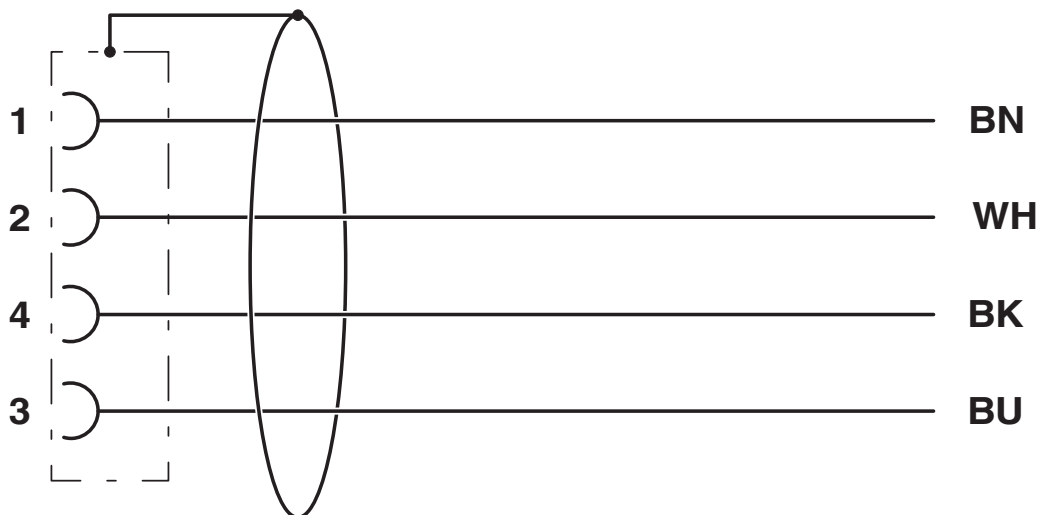


Pin assignment M12 socket, 4-pos., A-coded, view female side

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Circuit diagram



Contact assignment of the M12 socket

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1006687>



### UL Listed

Approval ID: FILE E 221474

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	300 V	4 A	-	-



### cUL Listed

Approval ID: FILE E 221474

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## Classifications

### ECLASS

ECLASS-13.0	27060311
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### 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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