

# SAC-4P-M 8MR/ 0,5-PUR/M 8FR SH - Sensor/actuator cable



1147958

<https://www.phoenixcontact.com/us/products/1147958>

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Sensor/actuator cable, 4-position halogen-free, shielded, Plug angled M8, coding: A, on Socket angled M8, cable length: 0.5 m

## Commercial data

Item number	1147958
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	BF01
Product key	BF1BJA
GTIN	4063151140342
Weight per piece (including packing)	37.28 g
Weight per piece (excluding packing)	37.28 g
Customs tariff number	85444290
Country of origin	PL

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## Technical data

### Product properties

Product type	Sensor/actuator cable
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
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

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	4 A

### Signaling

Status display	No
Status display present	No

### Connector

#### Connection 1

Type	Plug angled M8
Number of positions	4
Coding type	A
Number of positions	4

#### Connection 2

Type	Socket angled M8
Number of positions	4
	4


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## Cable/line

Cable length	0.5 m
PUR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	31 kg/km
UL AWM Style	20549
Number of positions	4
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	4x 0.25 mm <sup>2</sup> (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm (Signal line)
External cable diameter	4.7 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation) approx. 0.5 mm (Outer cable sheath)
Overall twist	4 wires, twisted
Optical shield covering	80 %
Max. conductor resistance	max. 78 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Smallest bending radius, fixed installation	24 mm
Smallest bending radius, movable installation	48 mm
Max. bending cycles	10000000
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2 DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1 Highly resistant to acids, alkaline solutions and solvents

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Other resistance	hydrolysis and microbe resistant
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
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 ... 90 °C (Plug / socket)
	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

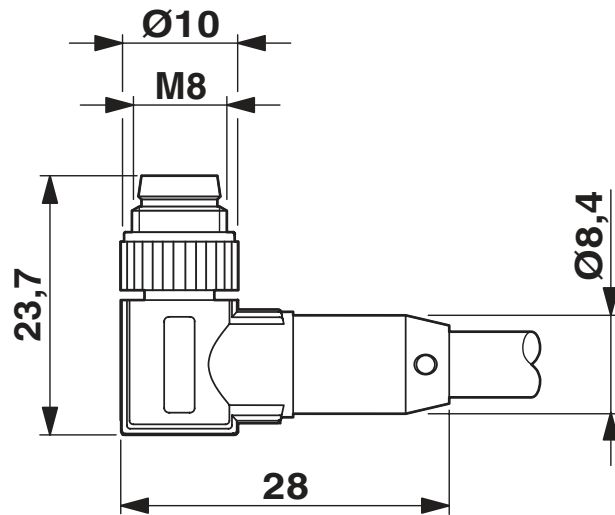
# SAC-4P-M 8MR/ 0,5-PUR/M 8FR SH - Sensor/actuator cable

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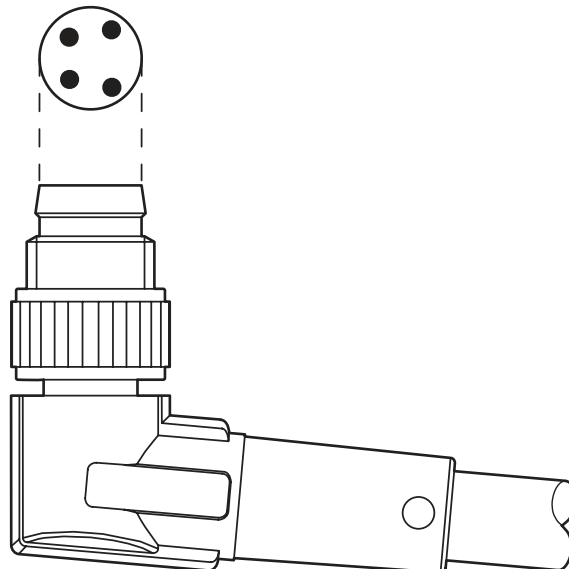
## Drawings

Dimensional drawing



Plug M8 x 1, angled, shielded

Schematic diagram



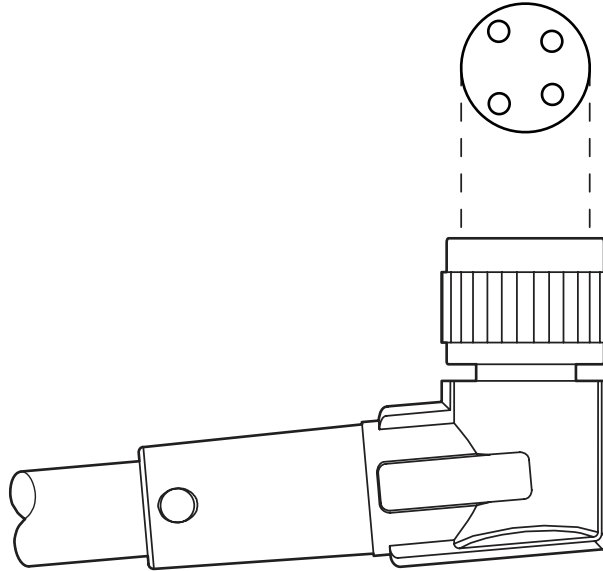
Layout of connector pin assignments

# SAC-4P-M 8MR/ 0,5-PUR/M 8FR SH - Sensor/actuator cable

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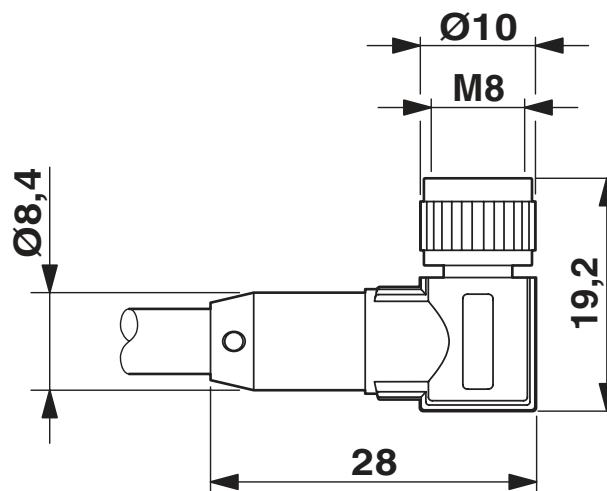
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Schematic diagram



Layout of connector pin assignments

Dimensional drawing



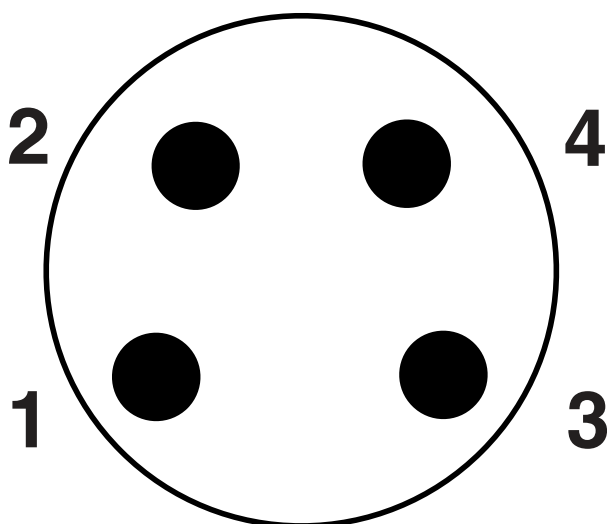
Socket M8 x 1, angled, shielded

# SAC-4P-M 8MR/ 0,5-PUR/M 8FR SH - Sensor/actuator cable

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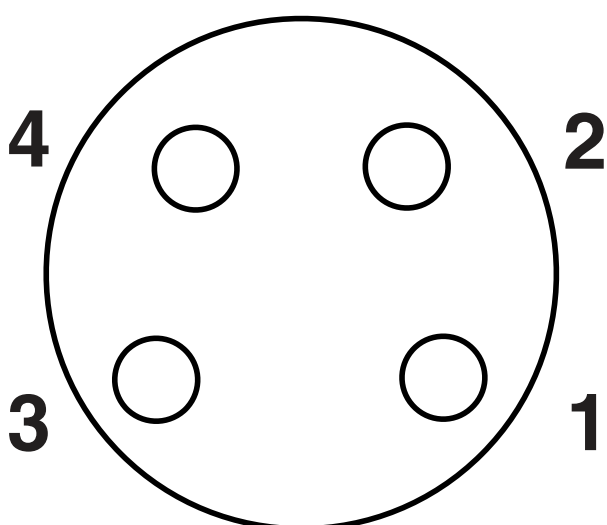
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Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

Schematic diagram



Pin assignment M8 socket, 4-pos.

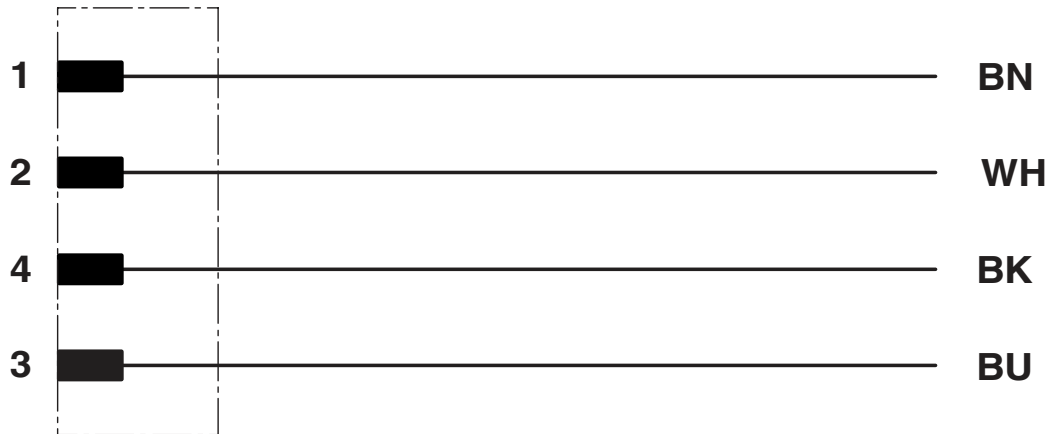
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Circuit diagram





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1147958>

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

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

### ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

### ETIM

ETIM 8.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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