

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



1404199

<https://www.phoenixcontact.com/us/products/1404199>

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, coding: A, 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

Commercial data

Item number	1404199
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	AF1BGA
GTIN	4046356681193
Weight per piece (including packing)	58.2 g
Weight per piece (excluding packing)	56.8 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	8
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Degree of pollution	3
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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

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	≥ 100

Signaling

Status display	no
Status display present	no

Connection data

Conductor connection	
Tightening torque	0.2 Nm (M8 connectors)

Connector

Connection 1	
Type	Plug straight M8
Number of positions	8

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Coding type	A
Connection 2	
Type	Socket straight M8
Number of positions	8
Coding type	A
Cable/line	
Cable length	1.5 m
PUR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	31.4 kg/km
UL AWM Style	20549
Number of positions	8
Shielded	no
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 ² (Signal line)
Wire diameter incl. insulation	1 mm ±0.02 mm (Signal line)
External cable diameter	5.10 mm ±0.15 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
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)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D

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Smallest bending radius, fixed installation	25.5 mm
Smallest bending radius, movable installation	51 mm
Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 51 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
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	According to DIN EN 60811-2-1, 168 h at 100°C
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
	IP68
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

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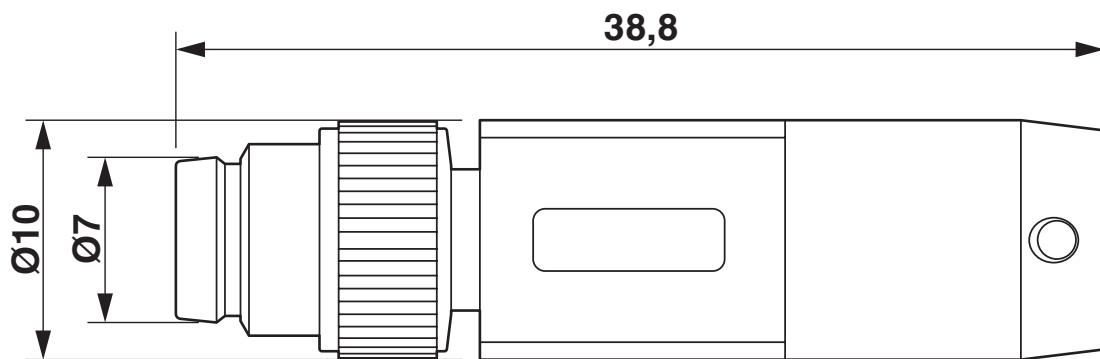


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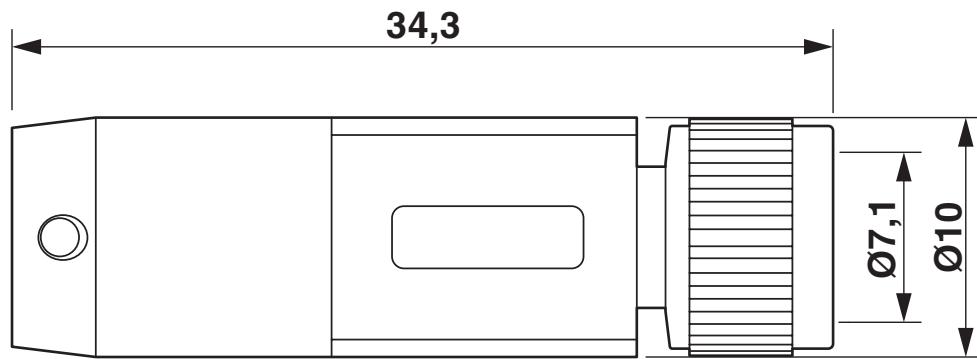
Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



Socket M8 x 1, straight

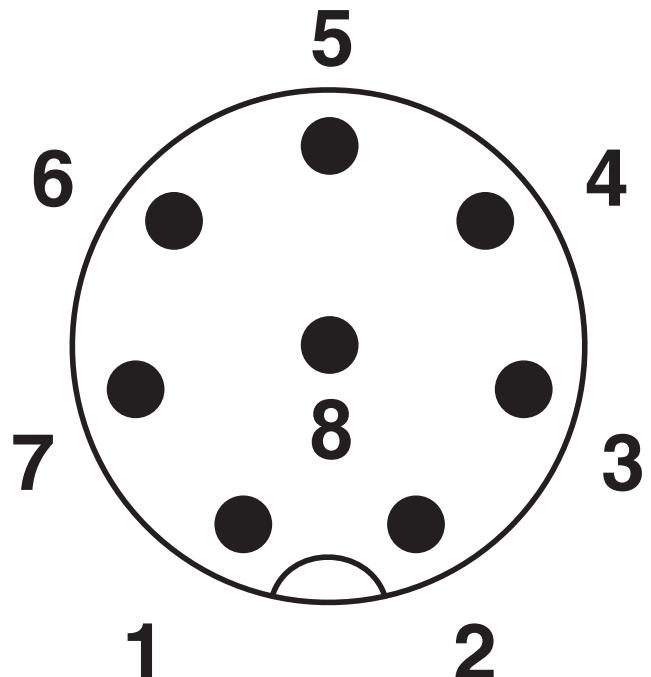
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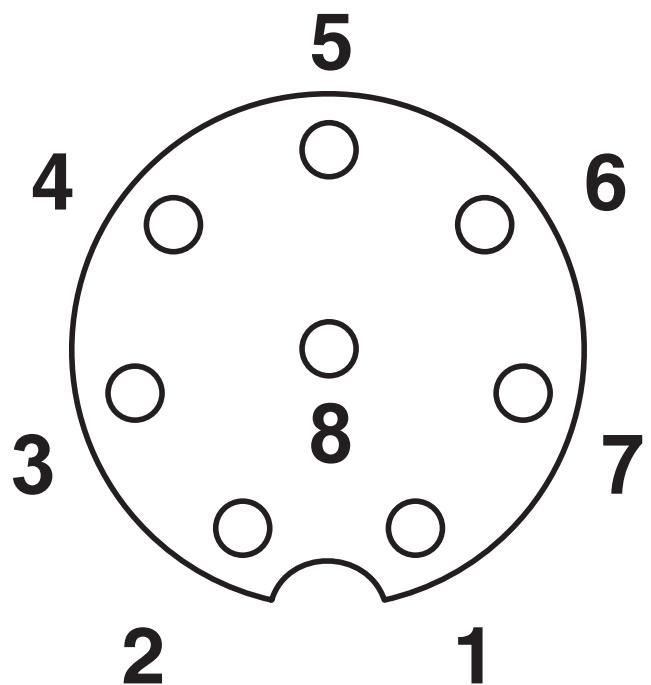
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Schematic diagram



M8 plug pin assignment, 8-pos., view of pin side

Schematic diagram



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

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Circuit diagram



Contact assignment of M8 plugs/sockets

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Approvals

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UL Listed		Approval ID: FILE E 221474		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
keine		30 V	1.5 A	-
				-

cUL Listed		Approval ID: FILE E 221474		
		Nominal voltage U_N	Nominal current I_N	Cross section AWG
keine		30 V	1.5 A	-
				-

EAC-RoHS		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	1.663 kg CO2e
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