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Sensor/actuator cable - SAC-3P-M 8MS/5,0-PUR/M 8FR

1693270

https://www.phoenixcontact.com/gb/products/1693270

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, on Socket angled M8, cable length: 5 m

Commercial Data

Item number	1693270
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1BBA
Product Key	BF1BBA
GTIN	4017918438692
Weight per Piece (including packing)	103.4 g
Weight per Piece (excluding packing)	95.4 g
Customs tariff number	85444290
Country of origin	DE

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Technical Data

Product properties

Product type	Sensor/actuator cable
Number of positions	3
No. of cable outlets	1
Shielded	no
Coding	A - standard

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Sealing material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Cable gland material	Zinc die-cast, nickel-plated

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A

Connector

Header 1

Head design	Plug
Head cable outlet	straight
Head thread type	M8

Head 2

Head design	Socket
Head cable outlet	angled
Head thread type	M8

LED signaling

Status display	No
Status display present	No

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Cable / line

Cable length	5 m
Cable weight	18 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	3x 0.25 mm²
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	3.6 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, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation)
Thickness, outer sheath	approx. 0.5 mm
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
Max. conductor resistance	≤ 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	18 mm
Smallest bending radius, movable installation	36 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
Other resistance	hydrolysis and microbe resistant
	Highly resistant to acids, alkaline solutions and solvents
	Resistant to salt water
	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)
Cable weight	23 kg/km

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Cable structure

Cable abbreviation	Li9Y11Y-HF
Cable type	PUR halogen-free black
External cable diameter	4.40 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Material wire insulation	PP
Thickness, insulation	≥ 0.38 mm (Core insulation)
Wire diameter incl. insulation	1.15 mm ±0.05 mm
Single wire, color	brown, blue, black
Overall twist	3 wires, twisted

Electrical properties

Nominal voltage, cable	300 V
Test voltage, cable	4000 V
Conductor resistance	≤ 77.6 Ω/m
Cable insulation resistance	≥ 100 GΩ*km

Mechanical properties

Smallest bending radius, movable installation	44 mm
Number of bending cycles	4000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s

Bending cycles

Smallest bending radius, movable installation	44 mm
Number of bending cycles	4000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

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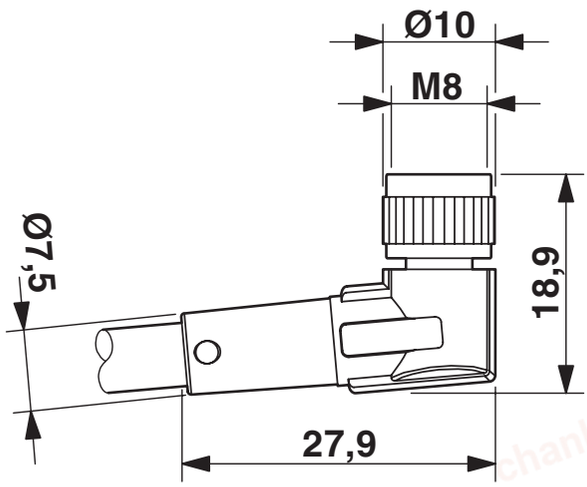
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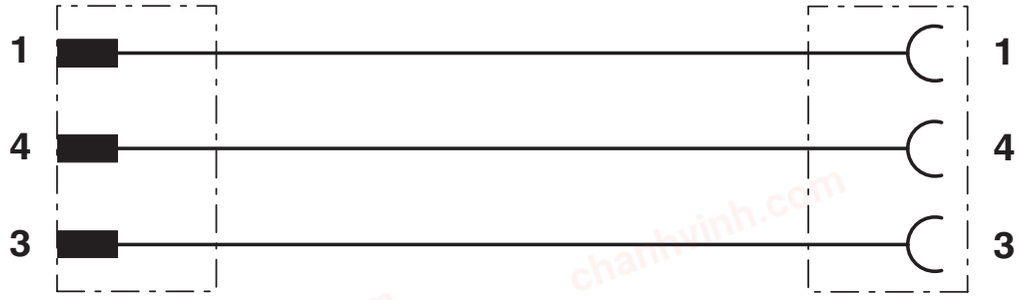
Drawings

Dimensional drawing



Socket M8 x 1, angled

Circuit diagram



Contact assignment of M8 plugs/sockets

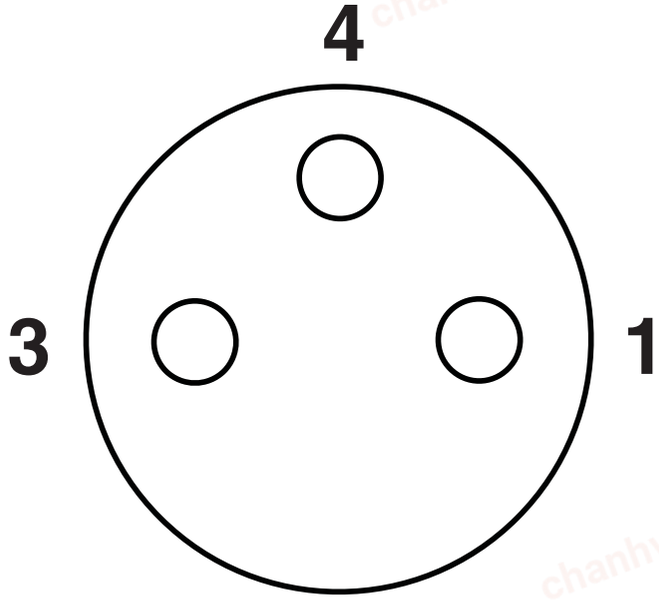
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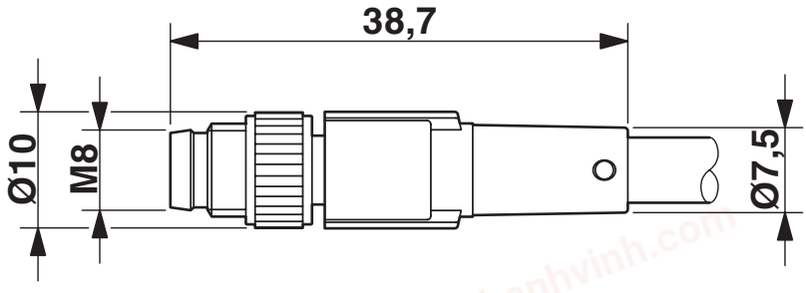
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Schematic diagram



Pin assignment M8 socket, 3-pos., view female side

Dimensional drawing



M8 x 1 male plug, straight version

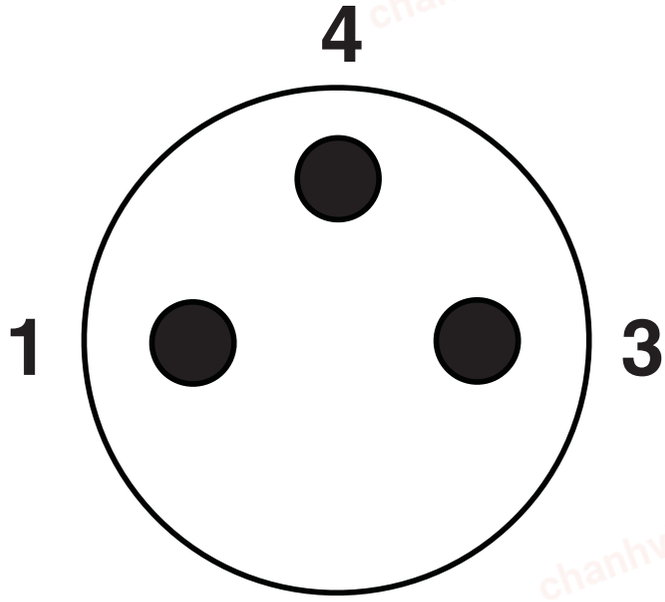
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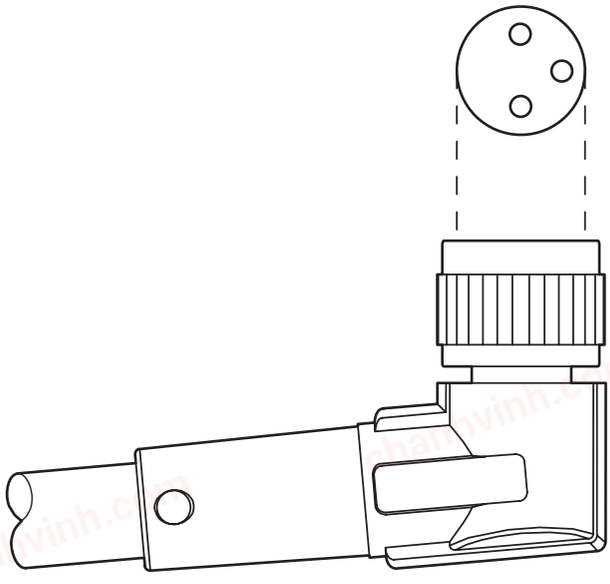
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Schematic diagram



Pin assignment M8 plug, 3-pos., view male side

Schematic diagram



Layout of connector pin assignments

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Approvals

UL Listed

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	4 A	-	-

cUL Listed

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	60 V	4 A	-	-

EAC

cULus Listed

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Classifications

ECLASS

ECLASS-9.0	27060311
ECLASS-10.0.1	27060311
ECLASS-11.0	27060311

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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