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, PUR halogen-free, black-gray RAL 7021, 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	1 pc
Note	Made to order (non-returnable)
Sales key	BF01
Product key	AF1BJA
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

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

Insulation resistance	≥ 100 MΩ
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

Connection 2

Type	Socket angled M8
Number of positions	4

Cable/line

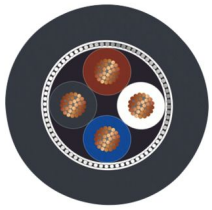
Cable length	0.5 m

PUR halogen-free black [PUR]

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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 mm² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm (Signal line)
External cable diameter	4.70 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. 0.50 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
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 48 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.
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	Highly resistant to acids, alkaline solutions and solvents
	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)

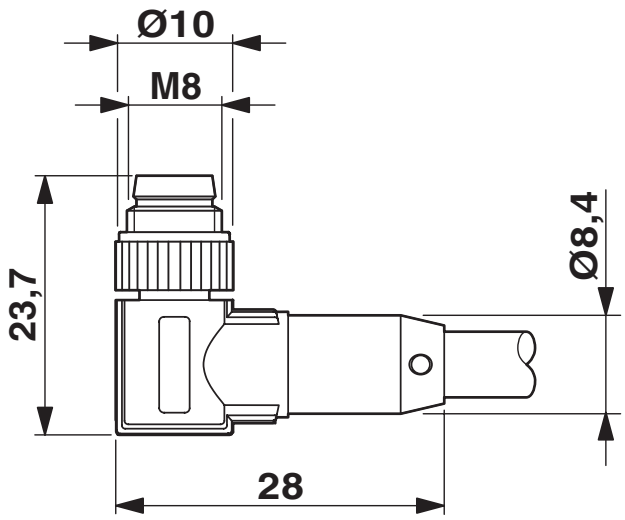
Environmental and real-life conditions

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)

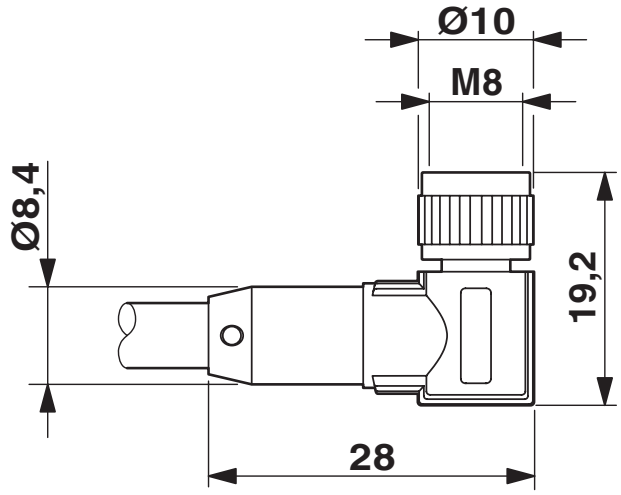
Drawings

Dimensional drawing



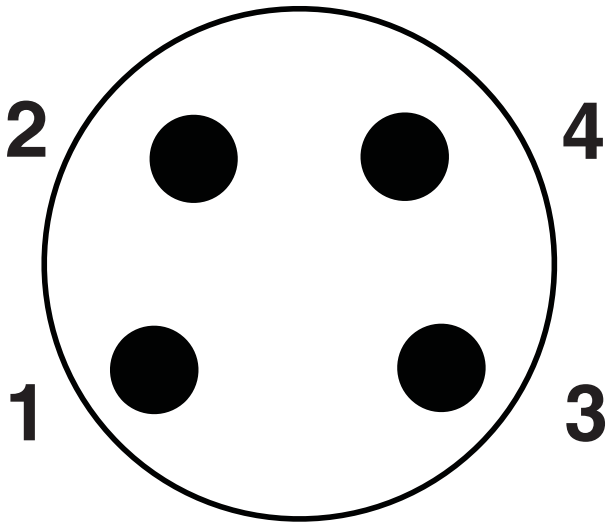
Plug M8 x 1, angled, shielded

Dimensional drawing



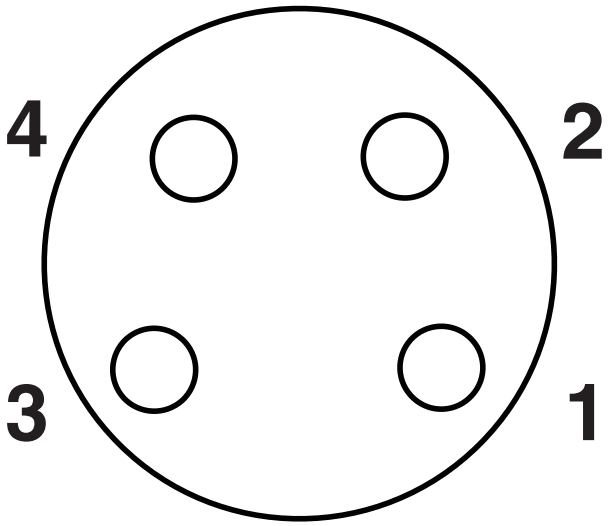
Socket M8 x 1, angled, shielded

Schematic diagram



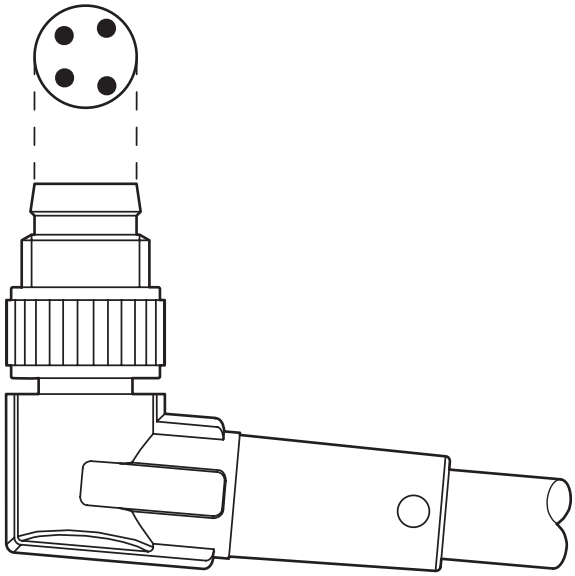
Pin assignment M8 plug, 4-pos., view male side

Schematic diagram



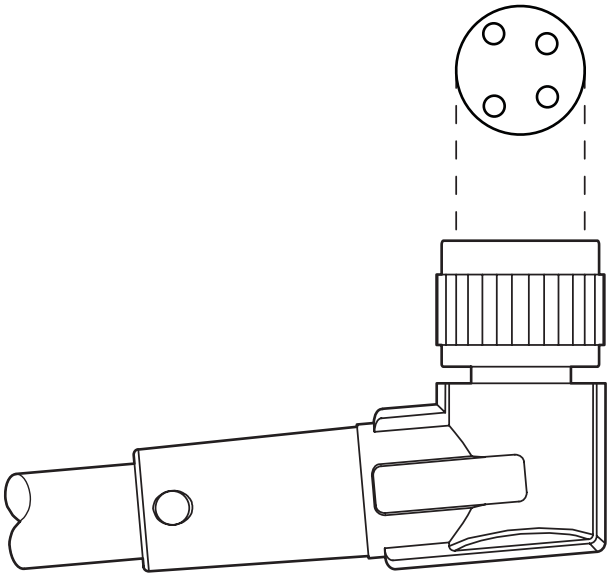
Pin assignment M8 socket, 4-pos.

Schematic diagram



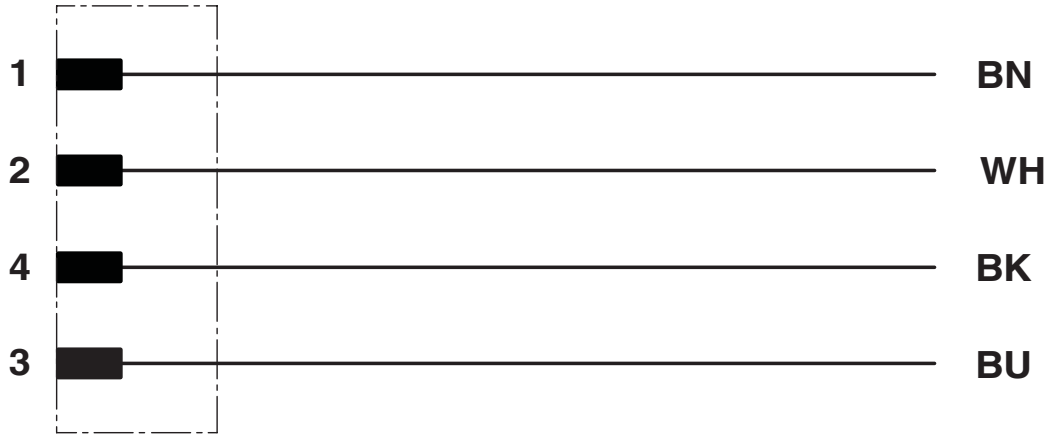
Layout of connector pin assignments

Schematic diagram



Layout of connector pin assignments

Circuit diagram



Contact assignment of M8 plugs/sockets

Approvals

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

UL Listed
Approval ID: FILE E 221474

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	4 A	-	-

cUL Listed
Approval ID: FILE E 221474

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	4 A	-	-

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 10.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

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%

EF3.1 Climate Change

CO2e kg	1.378 kg CO2e

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