

Sensor/actuator cable - SAC-4P- 1,5-PUR/M12FS



1668108

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Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, coding: A, cable length: 1.5 m

Your advantages

- Easy and safe: 100% electrically tested plug-in components

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Commercial Data

Order Key	1668108
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CCA
Product Key	BF1CCA
Catalog Page	Page 194 (C-2-2019)
GTIN	4017918136895
Weight per Piece (including packing)	49.21 g
Weight per Piece (excluding packing)	49.2 g
Customs tariff number	85444290
Country of origin	DE

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Technical Data

Product properties

Number of positions	4
Application	Standard
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	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	250 V AC
	250 V DC
Nominal current I_N	4 A
Protective circuit	unwired

Connector

Insertion/withdrawal cycles	≥ 100
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Header 1

Head design	free cable end
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Header 2

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Coding	A

LED signaling

Status display	No
Status display present	No

Cable / line

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Fixed cable length	1.5 m
Shielded	no
UL AWM Style	20549 / 10493 (80°C/300 V)
Cable weight	30 kg/km

Cable structure

Cable abbreviation	Li9Y11Y-HF
Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
External cable diameter	4.2 mm ±0,15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Thickness, outer sheath	approx. 0.5 mm
Conductor material	Bare Cu litz wires
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Material wire insulation	PP
Thickness, insulation	≥ 0.21 mm
Wire diameter incl. insulation	1.27 mm ±0.02 mm
Single wire, color	brown, white, blue, black
Overall twist	4 wires, twisted

Electrical properties

Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Conductor resistance	≤ 58 Ω/km
Cable insulation resistance	≥ 1 GΩ*km

Bending cycles

Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	10000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²

Ambient conditions

Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
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

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	Low adhesion
	abrasion-resistant
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	flexible
Ambient temperature (operation)	-25 °C ... 80 °C (Cable, flexible installation)
	-40 °C ... 80 °C (cable, fixed installation)
UL AWM Style	20549 / 10493 (80°C/300 V)
Cable type	PUR halogen-free black [PUR]
Number of positions	4
Shielded	no
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm ²
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Single wire, color	brown, white, blue, black
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

Standards and regulations

M12

Standards/specifications	IEC 61076-2-101
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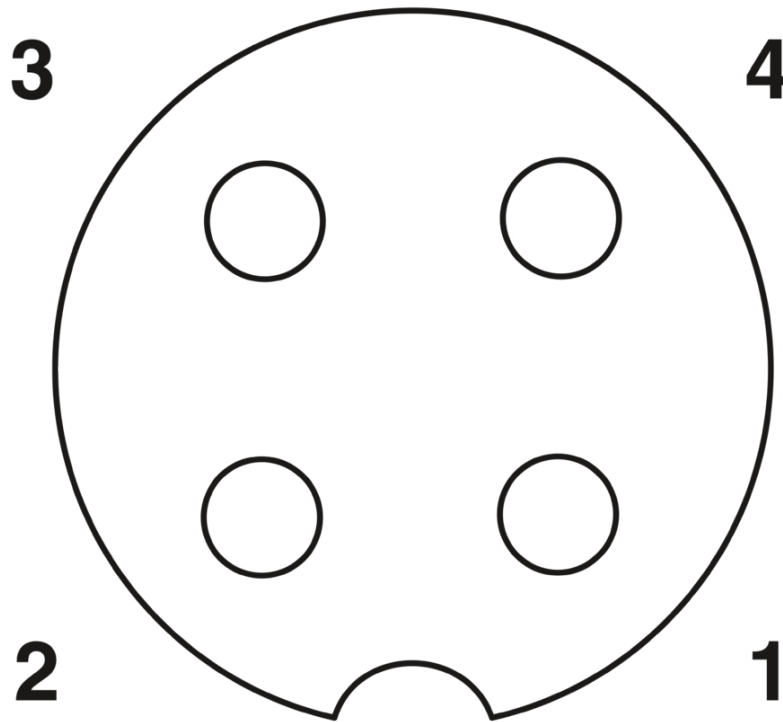


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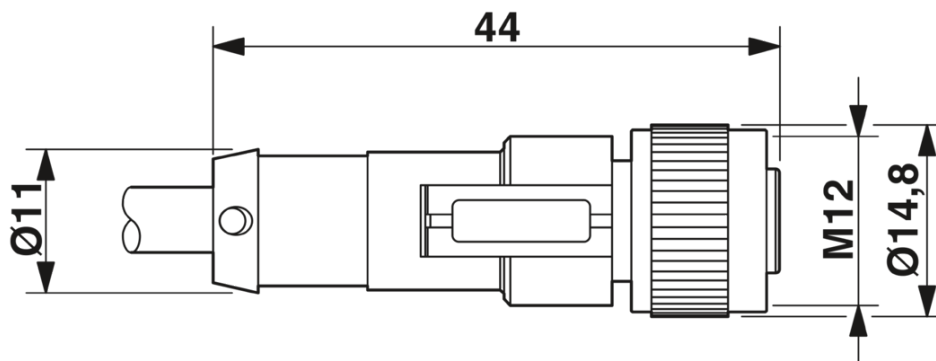
Drawings

Schematic diagram



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

Dimensional drawing



M12 x 1 socket, straight

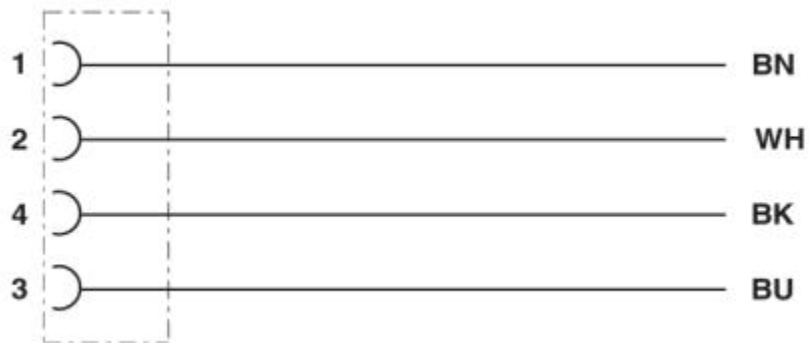
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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Approvals

EAC

UL Listed

Nominal Voltage U_N Nominal Current I_N

Cross Section AWG

Cross Section mm^2

300 V

4 A

-

-

cUL Listed

Nominal Voltage U_N Nominal Current I_N

Cross Section AWG

Cross Section mm^2

300 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 6.0	EC001855
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UNSPSC

UNSPSC 19.0	31251501
UNSPSC 20.0	31251501
UNSPSC 21.0	31251501

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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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