SAC-5P-M12MS/ 0,13-186/M12FS - Sensor/actuator cable

1437229

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Sensor/actuator cable, 5-position, PUR, black-gray RAL 7021, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 0.13 m

Commercial data

Item number	1437229
Packing unit	25 pc
Minimum order quantity	25 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CDA
GTIN	4046356458825
Weight per piece (including packing)	32.2 g
Weight per piece (excluding packing)	32.2 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
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

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Signaling

Status display	no
Status display present	no

Connector

Connection 1

Type	Plug straight M12
Number of positions	5
Coding type	A

Connection 2

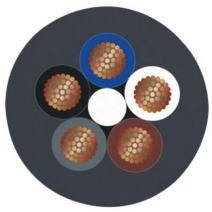
Type	Socket straight M12

Number of positions	5
Coding type	A

Cable/line

Cable length	0.13 m

PUR POWER 0.75 mm² black [186]

Dimensional drawing	
Cable weight	67 kg/km
Number of positions	5
Shielded	no
Cable type	PUR POWER 0.75 mm² black [186]
Conductor structure signal line	42x 0.15 mm
AWG signal line	18
Conductor cross-section	5x 0.75 mm² (power line)
Wire diameter incl. insulation	1.7 mm ±0.05 mm
External cable diameter	6.30 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black, gray
Thickness, insulation	≥ 0.23 mm (Core insulation)
	≥ 0.76 mm (Outer cable sheath)
Overall twist	5 wires around filler to the core
Max. conductor resistance	max. 26 Ω/km (at 20 °C)
Insulation resistance	≥ 1 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Smallest bending radius, movable installation	63 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 63 mm, Traversing path: 5 m, Traversing rate: 3 m/s, Acceleration: 5 m/s²
Flame resistance	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
	Low adhesion
	abrasion-resistant

	Resistant to salt water
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

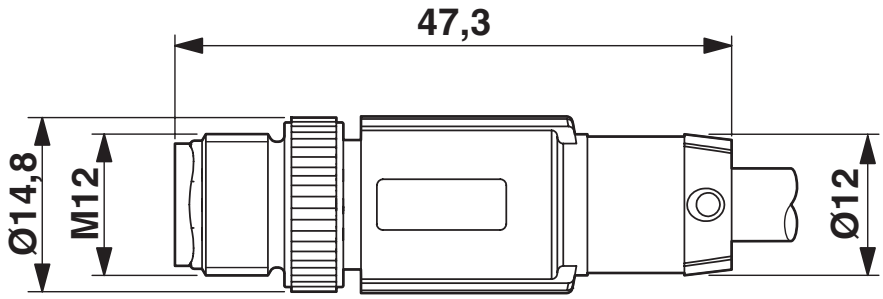
Environmental and real-life conditions

Ambient conditions

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

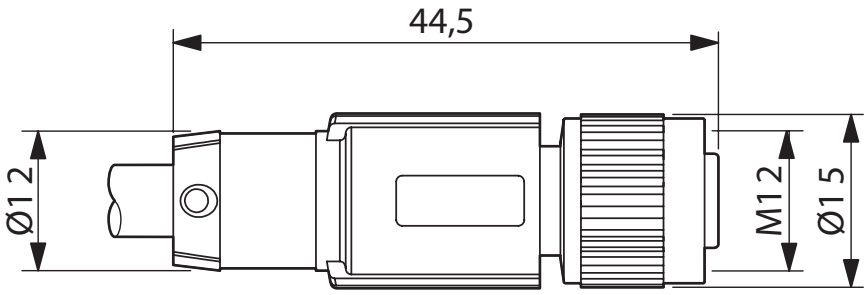
Drawings

Dimensional drawing



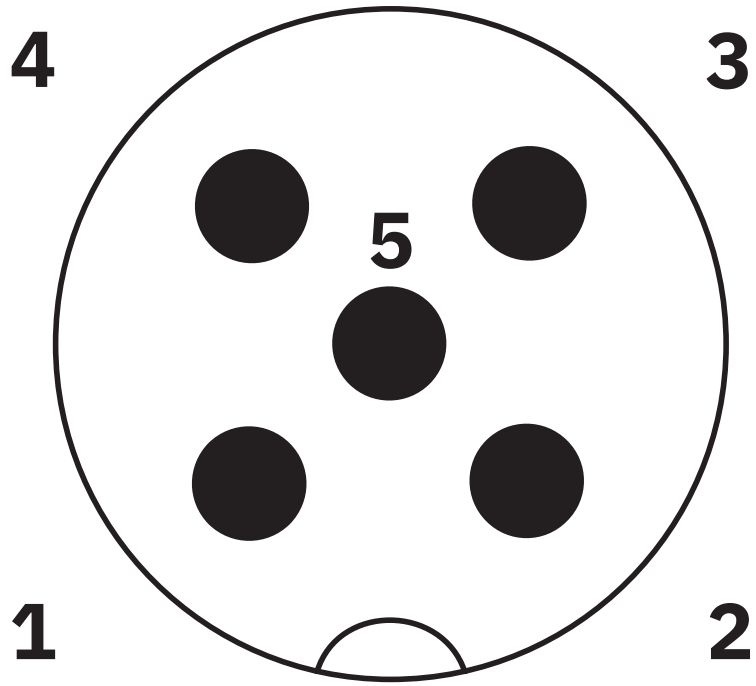
Plug, M12 x 1, straight, shielded

Dimensional drawing



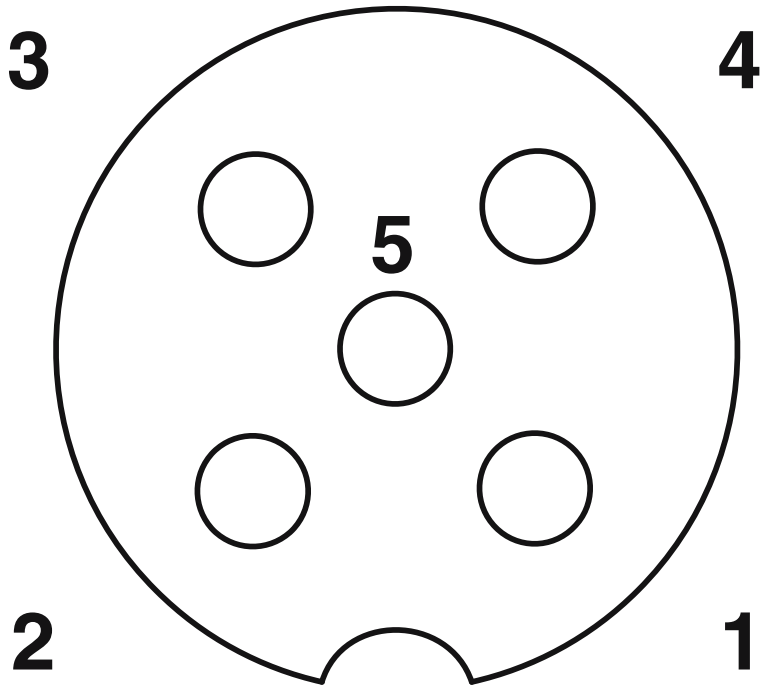
M12 x 1 socket, straight

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

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%

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