

SAC-5P-M12MR/ 0,5-542/M12FR BK - Sensor/actuator cable

1406163
<https://www.phoenixcontact.com/us/products/1406163>

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Sensor/actuator cable, 5-position, PVC, yellow, Plug angled M12, coding: A, on Socket angled M12, coding: A, cable length: 0.5 m

Commercial data

Item number	1406163
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF13
Product key	BF1ICC
GTIN	4046356798877
Weight per piece (including packing)	40.7 g
Weight per piece (excluding packing)	39.33 g
Customs tariff number	85444290
Country of origin	US

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1406163

<https://www.phoenixcontact.com/us/products/1406163>

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
Application	Standard, U.S. cables
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

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Protective circuit	unwired

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Signaling

Status display	No
Status display present	No

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)
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1406163

<https://www.phoenixcontact.com/us/products/1406163>

Connector

Connection 1

Type	Plug angled M12
Number of positions	5
Coding type	A

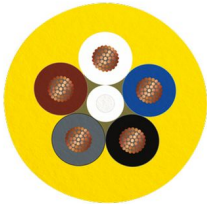
Connection 2

Type	Socket angled M12
Number of positions	5
Coding type	A

Cable/line

Cable length	0.5 m
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PVC yellow 105 °C [542]

Dimensional drawing	
Cable weight	43 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	5
Shielded	no
Cable type	PVC yellow 105 °C [542]
Conductor structure signal line	30x 1.30 mm
AWG signal line	22
Wire diameter incl. insulation	1.27 mm ±0.03 mm
External cable diameter	5.40 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	yellow
Conductor material	Tin-plated Cu litz wires
Material, filler	PP
Material wire insulation	PVC
Single wire, color	brown, blue, black, white, gray
Overall twist	5 wires around filler to the core
Max. conductor resistance	max. 50.5 Ω/km (20 °C)
Insulation resistance	≥ (550 M Ohms/m @ 500V)
Nominal voltage, cable	300 V
Minimum bending radius, flexible installation	8 x D

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1406163

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Smallest bending radius, movable installation	44 mm
Flame resistance	FT4
Other resistance	UV resistant
Special properties	UL standards PLTC and ITC
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)
	-5 °C ... 105 °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)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

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1406163

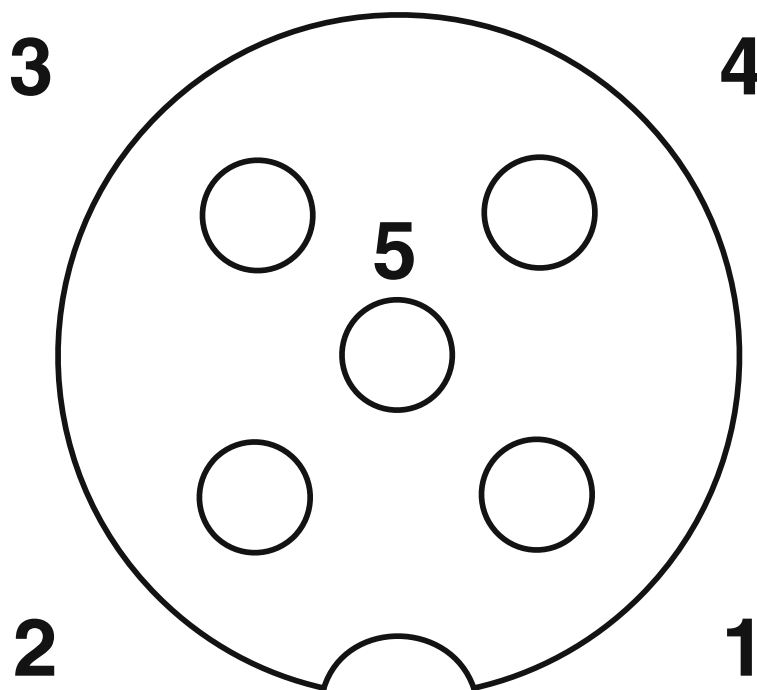
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Drawings

Circuit diagram



Schematic diagram



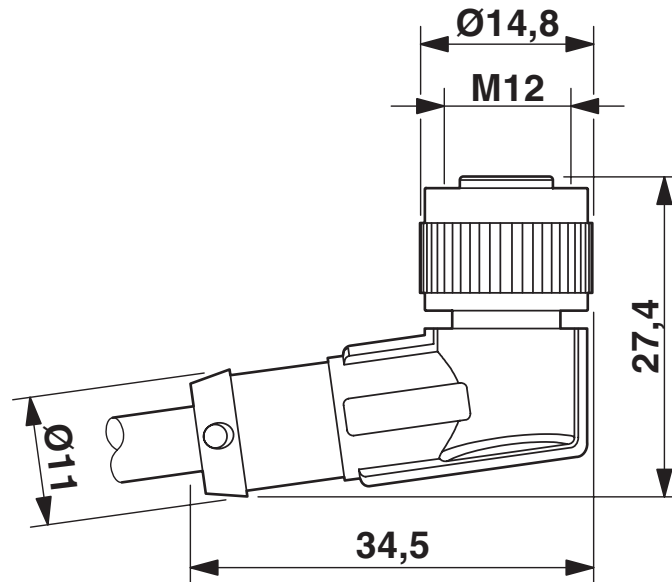
Pin assignment M12 socket, 5-pos., A-coded, female side

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1406163

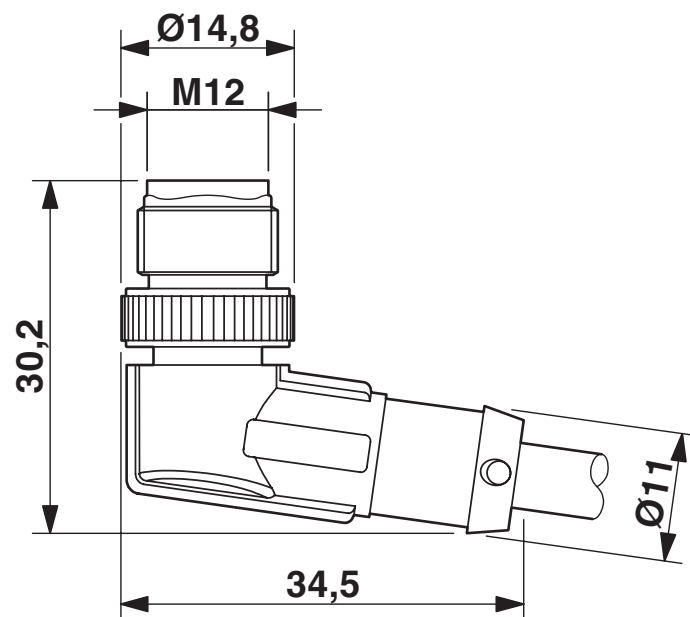
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Dimensional drawing



M12 x 1 socket, angled

Dimensional drawing



M12 x 1 male plug, angled

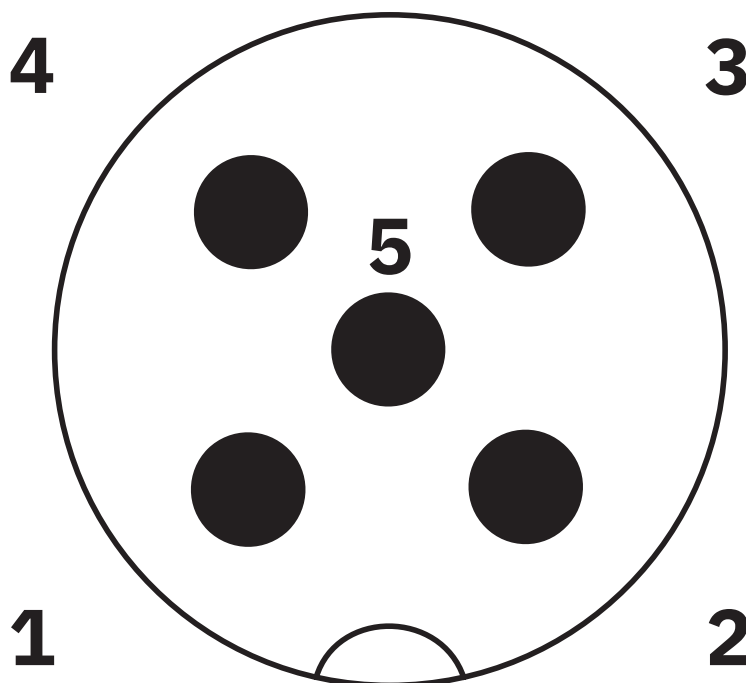
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1406163

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Schematic diagram



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

1406163
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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1406163>

	UL Listed Approval ID: FILE E 221474			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
	125 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
	125 V	4 A	-	-

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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1406163
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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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