chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 5-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, Plug straight M12, coding: A, on Socket angled M12, coding: A, cable length: 1 m

Commercial data

Item number	1454529
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AF1CDA
Product key	AF1CDA
GTIN	4046356578226
Weight per piece (including packing)	60.029 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	PL

chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	5
No. of cable outlets	1
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

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 angled M12
Number of positions	5
Coding type	A

Cable/line

Cable length	1 m

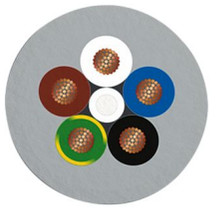
chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

PUR halogen-free highly flexible resistant to welding sparks gray 5th conductor green/yellow [802]

Dimensional drawing	
Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable weight	38 kg/km
UL AWM Style	20549
Number of positions	5
Shielded	no
Cable type	PUR halogen-free highly flexible resistant to welding sparks gray 5th conductor green/yellow [802]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	5x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.3 mm ±0.05 mm (Signal line)
External cable diameter	5.10 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	gray RAL 7001
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black, green-yellow
Overall twist	5 wires around filler to the core
Max. conductor resistance	approx. 53 Ω/km
Insulation resistance	≥ 20 MΩ*km
Nominal voltage, cable	300 V
Test voltage	1200 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D
Smallest bending radius, fixed installation	26 mm
Smallest bending radius, movable installation	26 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 7,5 x D, Traversing path: 5 m, Traversing rate: 3.3 m/s, Acceleration: 5 m/s²
	Max. bending cycles: 15000000, Bending radius: 50 mm, Traversing path: 0.9 m, Traversing rate: 5 m/s, Acceleration: 30 m/s²
Dynamic load capacity (torsion)	Torsion: ±360 °/m, Torsion cycles: 1000000, Torsional frequency: 35 cycles/min.
Halogen-free	The cable is halogen-free

chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

Flame resistance	in accordance with UL 758/1581 FT2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	Silicone-free
Special properties	Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing
	Free from silicone and cadmium
	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
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

chanhvinh.com

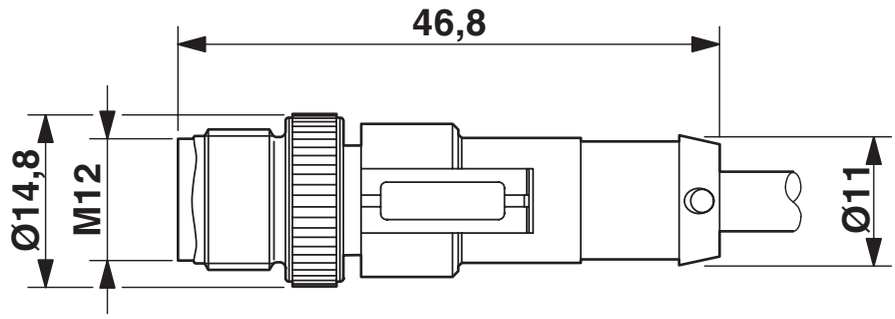
SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

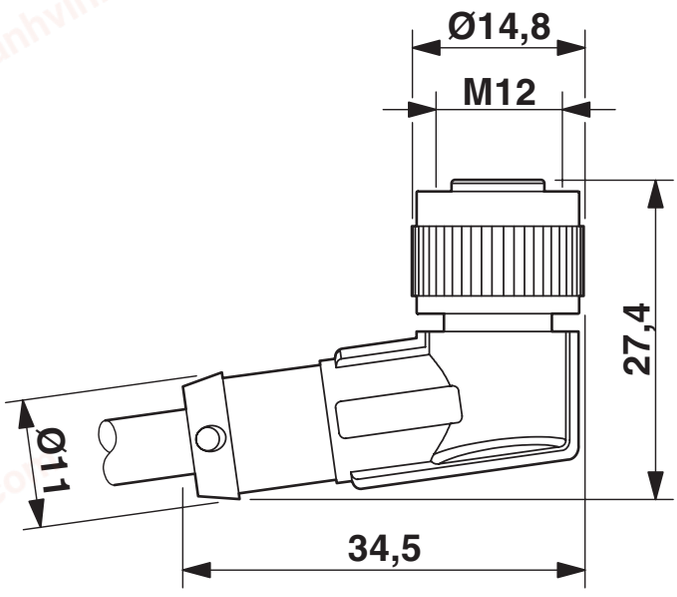
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, angled

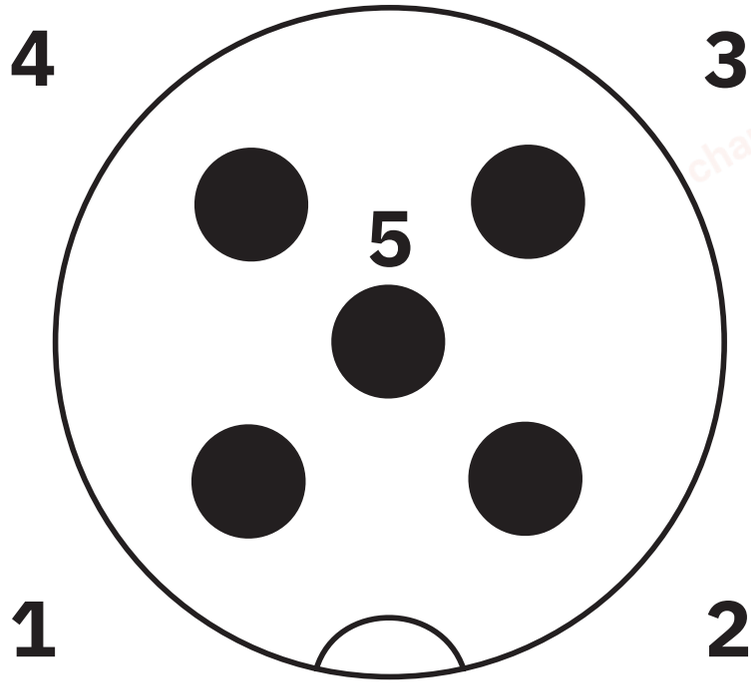
chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

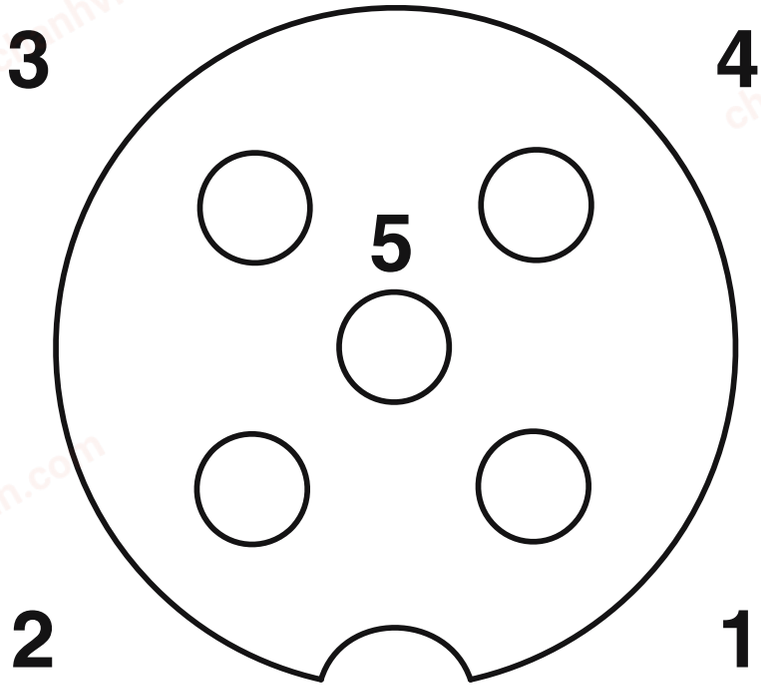
https://www.phoenixcontact.com/gb/products/1454529

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

chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

Classifications

ECLASS

ECLASS-13.0	27060311

ETIM

ETIM 9.0	EC001855

chanhvinh.com

SAC-5P-M12MS/ 1,0-802/M12FR - Sensor/actuator cable

1454529

https://www.phoenixcontact.com/gb/products/1454529

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%

Phoenix Contact 2025 © - all rights reserved
https://www.phoenixcontact.com

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk