

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

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, 4-position, PE-X/PE-X halogen-free, black-gray RAL 7021, shielded, Plug straight M12, coding: A, on free cable end, cable length: 10 m, for outdoor applications, with high-grade steel knurl

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C ... +105°C
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Commercial data

Item number	1454147
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	AF1CJA
GTIN	4046356568753
Weight per piece (including packing)	748.8 g
Weight per piece (excluding packing)	745.6 g
Customs tariff number	85444290
Country of origin	PL

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

Technical data

Product properties

Product type	Sensor/actuator cable
Application	External areas
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Degree of pollution	3
---------------------	---

Material specifications

Flammability rating according to UL 94	V0
Seal material	FPM
Material of grip body	PP
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material for screw connection	Stainless steel

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
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

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)
-------------------	------------------------

Connector

Connection 1

Type	Plug straight M12
------	-------------------

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

Number of positions	4
Coding type	A

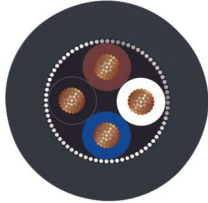
Connection 2

Type	free cable end
------	----------------

Cable/line

Cable length	10 m
--------------	------

PE-X black [28X]

Dimensional drawing	
Cable weight	74 kg/km
Number of positions	4
Shielded	yes
Cable type	PE-X black [28X]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross-section	4x 0.5 mm ² (Signal line)
Wire diameter incl. insulation	1.6 mm ±0.05 mm (Signal line)
External cable diameter	6.80 mm ±0.2 mm
Outer sheath, material	PE-X
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PE-X
Single wire, color	brown, white, blue, black
Thickness, insulation	approx. 0.30 mm (Core insulation) approx. 0.70 mm (Outer cable sheath) approx. 0.45 mm (Inner sheath)
Overall twist	4 wires, twisted
Length of twist, overall twist	108.8 mm
Optical shield covering	85 %
Max. conductor resistance	≤ 39 Ω/km (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Cable capacity	≤ 100 nF/km (Conductor-conductor, asymmetrical/touching) ≤ 85 nF/km (Conductor-conductor, symmetrical/star quad) ≤ 150 nF/km (Wire/shield)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	68 mm
Dynamic load capacity (bending)	Max. bending cycles: 1000000, Bending radius: 68 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	according to DIN 60332-1-2 according to DIN EN 50266-2-5
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant (according to DIN VDE 0276-605)
Special properties	Irradiated
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation) -15 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65 IP67 IP68 IP69K
Ambient temperature (operation) (male connector/female connector)	-40 °C ... 105 °C (Plug / socket)
Ambient temperature (operation) (Operation)	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))

Standards and regulations

M12

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

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable

1454147

<https://www.phoenixcontact.com/us/products/1454147>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



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

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

Circuit diagram



Contact assignment of the M12 plug

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1454147>

DNV

Approval ID: TAE00002K4



EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 10.0	EC001855
-----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

SAC-4P-M12MS/10,0-28X SH OD - Sensor/actuator cable



1454147

<https://www.phoenixcontact.com/us/products/1454147>

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	10.957 kg CO2e
---------	----------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com