

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, PE-X halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, coding: A, cable length: 2 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

Commercial data

Item number	1407258
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	BF1CDA
Catalog page	Page 155 (C-4-2013)
GTIN	4046356773751
Weight per piece (including packing)	142 g
Weight per piece (excluding packing)	149.3 g
Customs tariff number	85444290
Country of origin	PL

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

Technical data

Product properties

Product type	Sensor/actuator cable
Application	External areas
Number of positions	5
No. of cable outlets	1
Shielded	no
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	free cable end
------	----------------

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

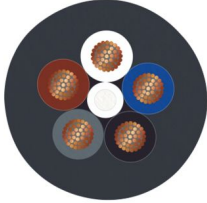
Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	A

Cable/line

Cable length	2 m
--------------	-----

PE-X black [28X]

Dimensional drawing	
Cable weight	70 kg/km
Number of positions	5
Shielded	no
Cable type	PE-X black [28X]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross section	5x 0.5 mm ²
Wire diameter incl. insulation	1.6 mm ±0.05 mm
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, filler	PP yarn
Material wire insulation	PE-X
Single wire, color	brown, white, blue, black, gray
Thickness, insulation	approx. 0.30 mm (Core insulation)
Thickness, outer sheath	approx. 1.25 mm
Overall twist	5 wires around filler to the core
Length of twist, overall twist	68 mm
Max. conductor resistance	≤ 39 Ω/m (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	68 mm

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

Max. bending cycles	2000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²
Halogen-free	in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1
Flame resistance	According to DIN EN 60332-1-2 according to DIN EN 50266-2-5 according to IEC 60332-3-25 (bunched fire test)
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C According to DIN EN 50306
Other resistance	Resistance to fuels (according to IEC 60811, 168 h at 70°C) 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) 20 °C ±5 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

M12

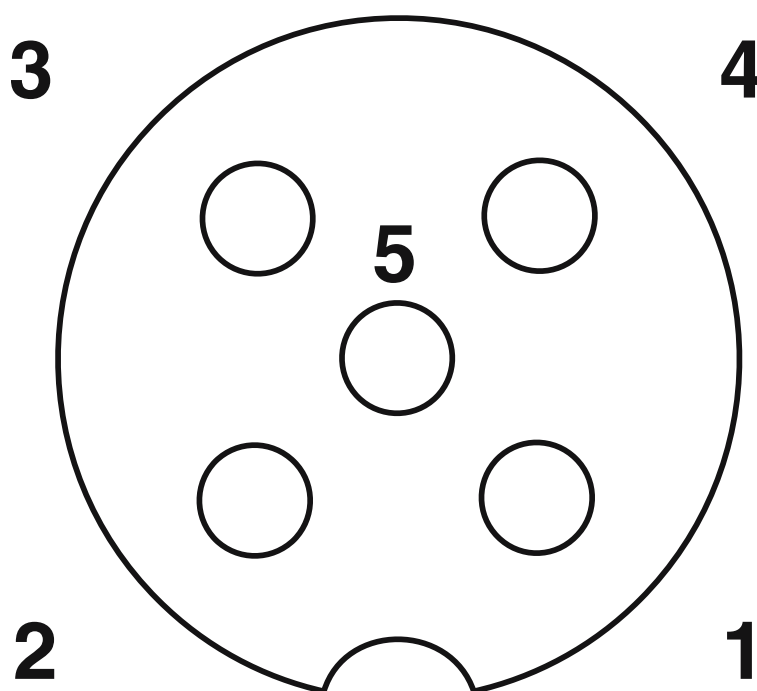
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

1407258

<https://www.phoenixcontact.com/us/products/1407258>

Drawings

Schematic diagram



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

Circuit diagram



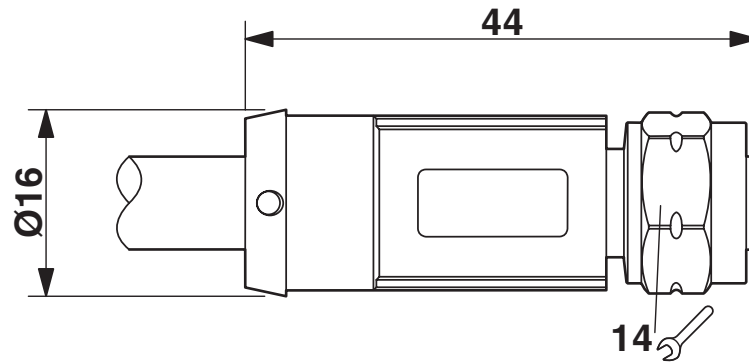
SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable

1407258

<https://www.phoenixcontact.com/us/products/1407258>



Dimensional drawing



M12 x 1 socket, straight

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407258>

DNV

Approval ID: TAE00002K4



EAC-RoHS

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

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001855
----------	----------

UNSPSC

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

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.)	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	33496967-7349-49e5-8bf4-bd5ed2e1237e

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

Accessories

TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/us/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/us/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

SAC-5P- 2,0-28X/M12FS OD - Sensor/actuator cable



1407258

<https://www.phoenixcontact.com/us/products/1407258>

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/us/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

SAC BIT M12-W14 - Tool

1212513

<https://www.phoenixcontact.com/us/products/1212513>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a hexagonal knurl wrench size of 14 mm, with 4 mm hexagonal drive

Phoenix Contact 2024 © - 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