SAC-8P- 1,5-PUR/M12FS SH - Sensor/actuator cable

1522862

https://www.phoenixcontact.com/in/products/1522862

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, free cable end, on Socket straight M12, coding: A, cable length: 1.5 m

Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Commercial Data

Item number	1522862
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1
Product Key	BF1CMA
Catalog Page	Page 211 (C-2-2019)
GTIN	4017918957643
Weight per Piece (including packing)	96.9 g
Weight per Piece (excluding packing)	95.1 g
Customs tariff number	85444290
Country of origin	PL

Technical Data

Product properties

Product type	Sensor/actuator cable
Number of positions	8
Application	Standard
No. of cable outlets	1
Shielded	yes
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	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	30 V AC
	30 V DC
Nominal current I_N	2 A
Protective circuit	unwired

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 2

Coding type	A

Cable/line

Cable length	1.5 m

PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	53 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	8
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	8x 0.25 mm² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	5.9 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, green, yellow, gray, pink, blue, red
Thickness, insulation	approx. 0.2 mm
Thickness, outer sheath	approx. 0.5 mm
Overall twist	8 wires around filler to the core
Optical shield covering	85 %
Max. conductor resistance	≤ 78 Ω/km (at 20 °C)
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)
Test voltage Core/Shield	≥ 2000 V AC (for 60 s)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	2000000

Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	in acc. with UL FT-2
	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
	According to DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with IEC 60811-404
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
	low-abrasion
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Special properties	Flexible cable conduit capable
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
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

| Standards/specifications | IEC 61076-2-101 |

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Drawings

Dimensional drawing

Ø12 44,5 M12 Ø14,8
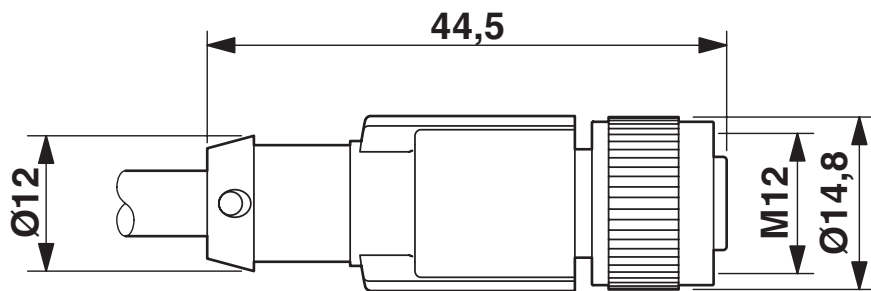
M12 x 1 socket, straight, shielded

Circuit diagram

1	WH
2	BN
3	GN
4	YE
5	GY
6	PK
7	BU
8	RD
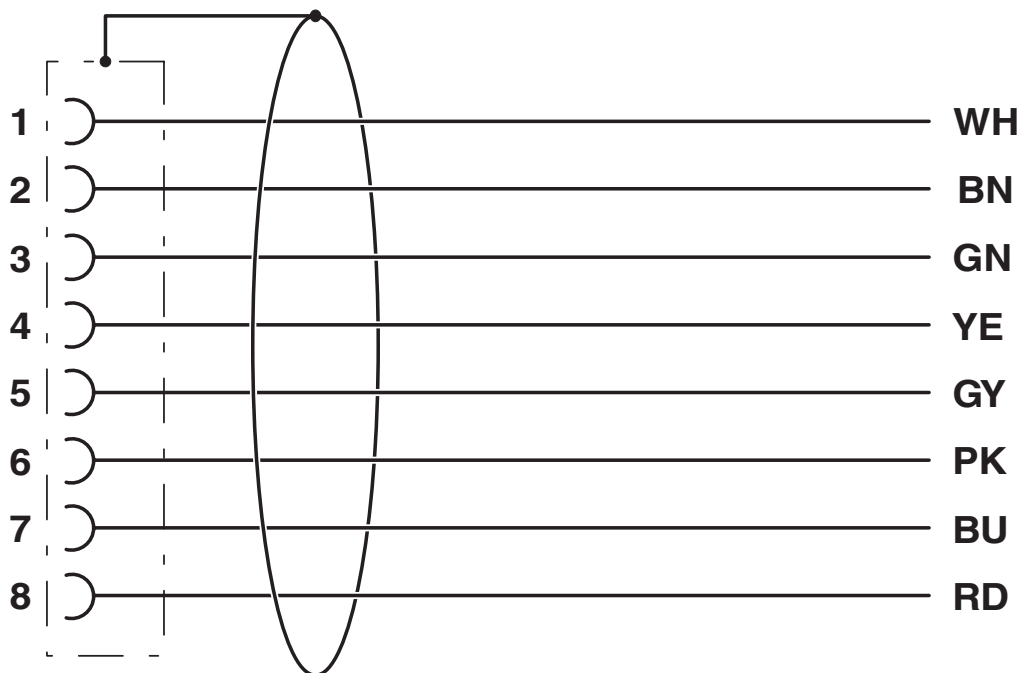
Schematic diagram
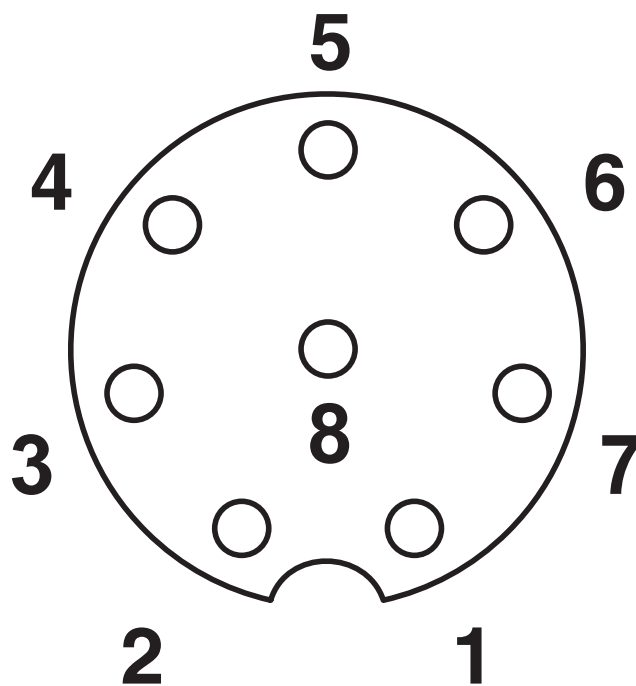
Pin assignment M12 socket, 8-pos., A-coded, view female side

Approvals

UL Listed
Approval ID: FILE E 221474

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	30 V	2 A	-	-

cUL Listed
Approval ID: FILE E 221474

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	30 V	2 A	-	-

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

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

PABA WH/23 - Insert label

1013779

https://www.phoenixcontact.com/in/products/1013779

Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

PABA YE/23 - Insert label

1013782

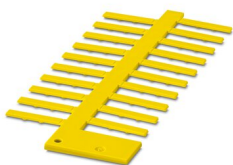https://www.phoenixcontact.com/in/products/1013782

Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/in/products/1051993

Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

CUTFOX-S VDE - Diagonal cutter

1212207

https://www.phoenixcontact.com/in/products/1212207

Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

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WIREFOX SAC-1 - Stripping tool

1212757

https://www.phoenixcontact.com/in/products/1212757

Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

WIREFOX SAC - Stripping tool

1212623

https://www.phoenixcontact.com/in/products/1212623

Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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WIREFOX 10 - Stripping tool

1212150

https://www.phoenixcontact.com/in/products/1212150

Stripping tool, for cables and conductors from 0.02 - 10 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

WP-CTA POM 13,0 BK - Protective hose adapter

1422884

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Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

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WP-PA HF 13,0 BK - Protective hose

3240681

https://www.phoenixcontact.com/in/products/3240681

Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

WP-PA HF-HB 13,0 BK - Protective hose

3240839

https://www.phoenixcontact.com/in/products/3240839

Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

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PROT-M12 MS-PA-CHAIN - Screw plug

1430899

https://www.phoenixcontact.com/in/products/1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets

SAC-M12-EXCLIP-F - Locking clip

1558991

https://www.phoenixcontact.com/in/products/1558991

Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

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TSD 04 SAC - Torque screwdriver

1208429

https://www.phoenixcontact.com/in/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/in/products/1212224

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

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TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

https://www.phoenixcontact.com/in/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-D15 - Tool

1208432

https://www.phoenixcontact.com/in/products/1208432

Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive