

Sensor/actuator cable - SAC-4P-3,0-600/M12FS SH HD - 1403986

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Sensor/actuator cable, 4-position, PP-EPDM halogen-free, gray RAL 7035, shielded, free cable end, on Socket straight M12, coding: A, cable length: 3 m, Hygienic design, with high-grade steel knurl

Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Easy to clean, thanks to the special hygienic design
- ✓ Corrosion protection for all exposed metal parts, thanks to the use of stainless steel type 1.4404
- ✓ Contamination can be detected quickly – thanks to the light color
- ✓ Reliable signal transmission – 360° shielding in environments with electromagnetic interference

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 677417
GTIN	4046356677417

Technical data

Dimensions

Length of cable	3 m
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Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
Degree of protection	IP65
	IP67
	IP68
	IP69K

General

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC

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Technical data

General

Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
	Material conformance FDA 21 CFR 177.2600
Status display	No
Protective circuit/component	unwired
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	Stainless steel
Sealing material	FKM

Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
	Material conformance FDA 21 CFR 177.2600

Cable

Cable abbreviation	Li9YV1-C-V1-9Y
Conductor cross section	4x 0.34 mm² (Signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	48 mm
Shielding	Braided copper wires
Optical shield covering	85 %
External sheath, color	gray RAL 7035
Outer sheath thickness	approx. 0.8 mm
External cable diameter D	5.55 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000

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Technical data

Cable

Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²
Cable weight	40 kg/km
Outer sheath, material	PP-EPDM
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Conductor resistance	58 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Test voltage Core/Shield	≥ 2000 V AC (for 60 s)
Special properties	FDA compliant according to FDA 21 CFR 177.2600
	flexible
	Flexible cable conduit capable
Halogen-free	in accordance with DIN VDE 0472 part 815
Other resistance	Resistant to cold bending and cold impacts According to DIN EN 60811-1-4 (-40 °C)
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-25 °C ... 105 °C (cable, flexible installation)

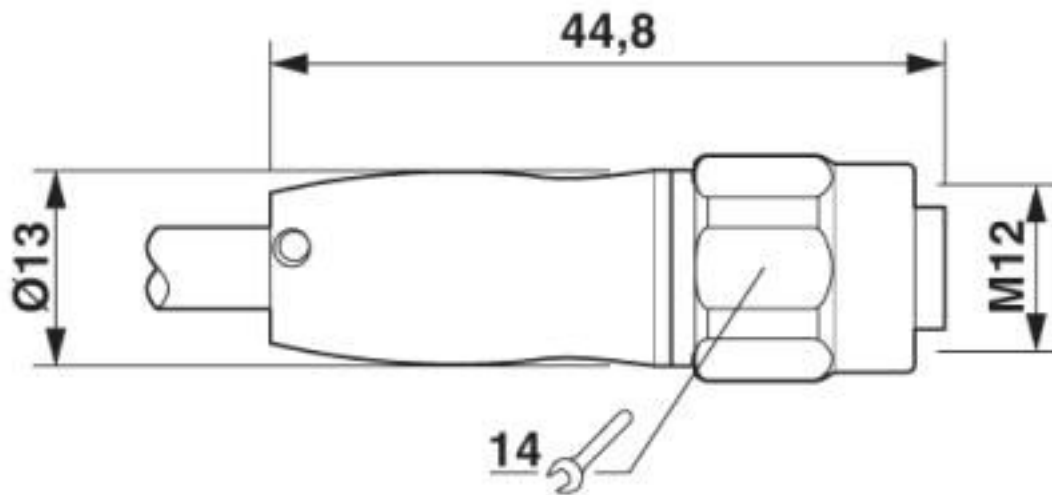
Environmental Product Compliance

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

Drawings

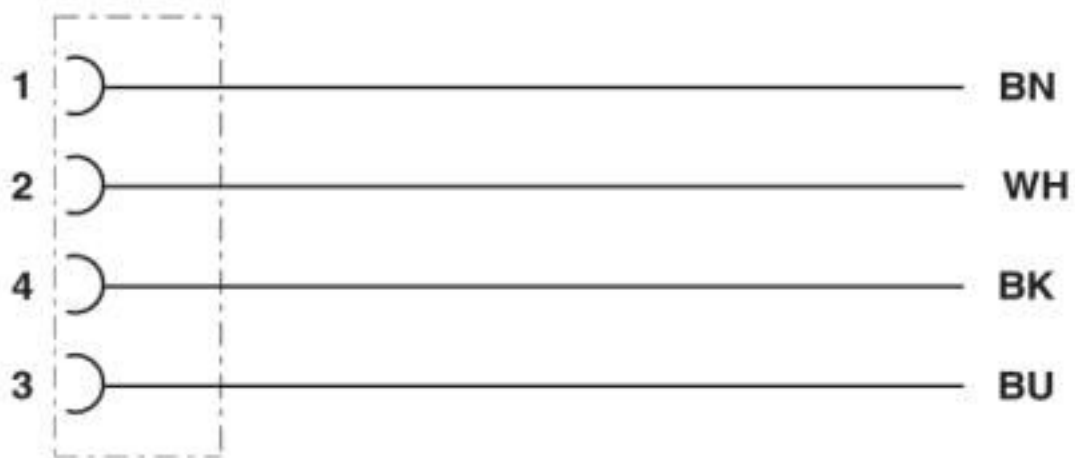
Sensor/actuator cable - SAC-4P-3,0-600/M12FS SH HD - 1403986

Dimensional drawing



M12 x 1 socket, straight

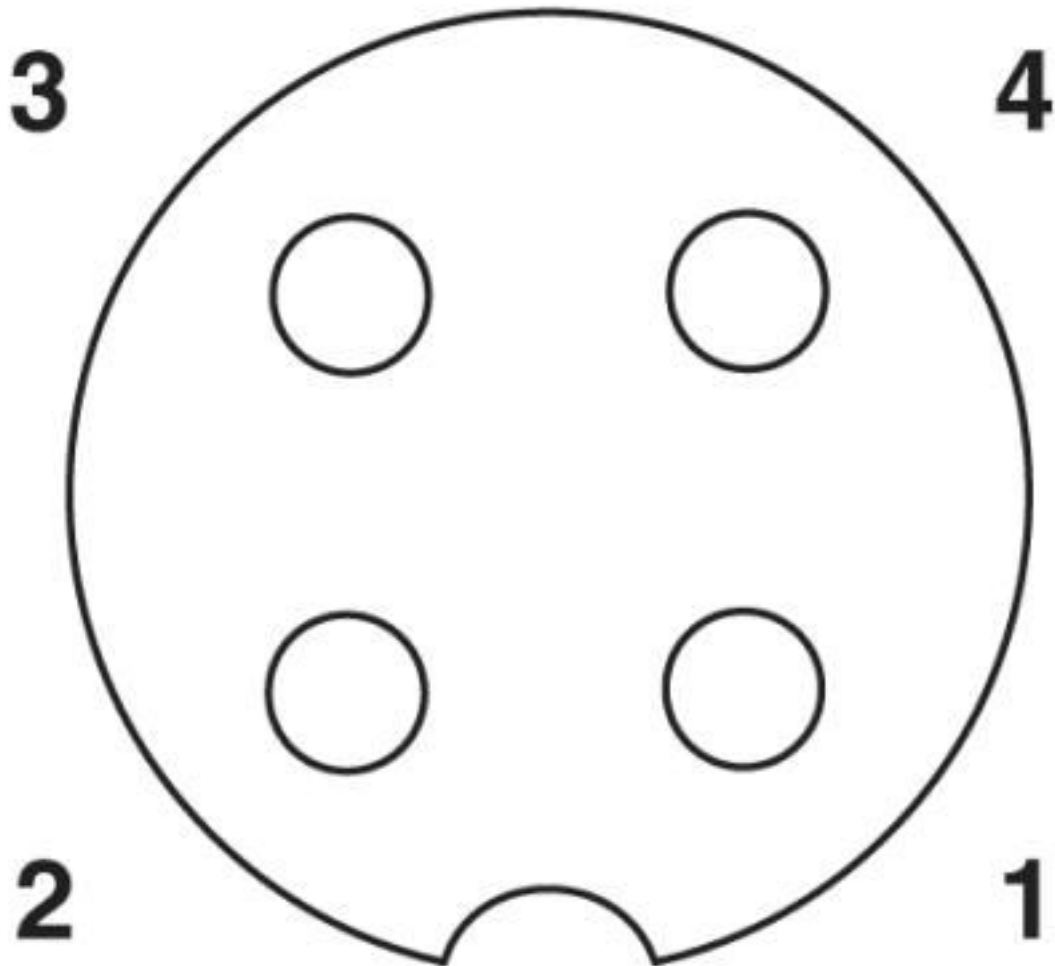
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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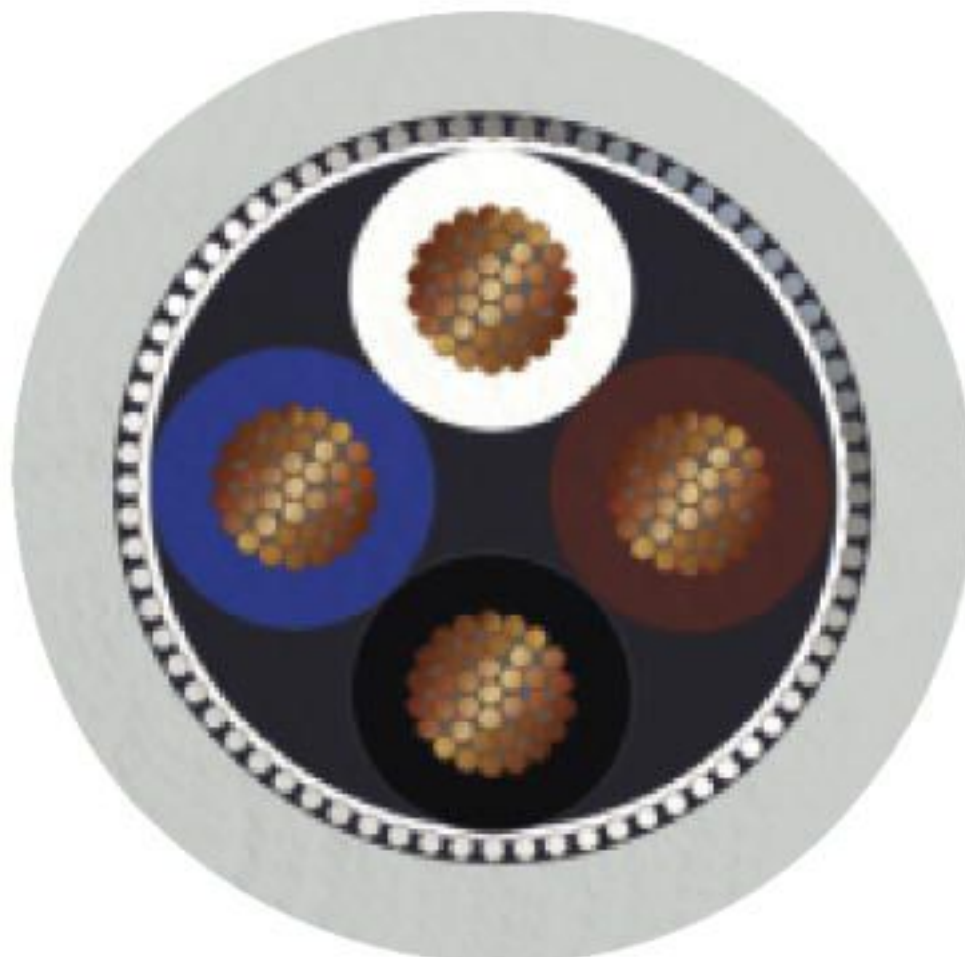
Schematic diagram



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

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Cable cross section



Halogen-free PP gray shielded [600]

Classifications

eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 4.0	27060300
eCl@ss 4.1	27060300
eCl@ss 5.0	27061800
eCl@ss 5.1	27061800
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

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Classifications

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501
UNSPSC 19.0	31251501
UNSPSC 20.0	31251501
UNSPSC 21.0	31251501

Approvals

Approvals

Approvals

EAC-RoHS / EAC

Ex Approvals

Approval details

EAC-RoHS		RU D- DE.HB35.B.00387
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EAC		RU C- DE.BL08.B.00286
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Accessories

Accessories

Cutting tools

Sensor/actuator cable - SAC-4P-3,0-600/M12FS SH HD - 1403986

Accessories

Diagonal cutter - CUTFOX-S VDE - 1212207



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

Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



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

Adapter - SAC BIT M12-W14 - 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

Stripping tool

Stripping tool - WIREFOX SAC - 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

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

Torque tool

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Accessories

Torque screwdriver - TSD 04 SAC - 1208429



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

Torque screwdriver - TSD-M 1,2NM - 1212224



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

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