

# Sensor/Actuator cable - SAC-4P-5,0-600/M12FS SH HD - 1403987

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Sensor/Actuator cable, 4-position, PP-EPDM halogen-free, Gray RAL 7035, shielded, Free cable end, on Socket straight M12, A-coded, Cable length: 5 m, Hygienic design, With high-grade steel knurl

## Why buy this product

- 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



## Key commercial data

Packing unit	1 pc
GTIN	 4 046356 677424
Weight per Piece (excluding packing)	216.0 g
Custom tariff number	85444290
Country of origin	Poland

## Technical data

### Dimensions

Length of cable	5 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	250 V

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### Technical data

#### General

Number of positions	4
Contact resistance	≤ 5 mΩ
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
Surge voltage category	II
Pollution degree	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	High-grade steel
Sealing material	FKM

#### Cable

Cable type	Halogen-free PP gray shielded
Cable type (abbreviation)	600
Cable abbreviation	Li9YV1-C-V1-9Y
Conductor cross section	4x 0.34 mm <sup>2</sup> (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
Cable weight	40 kg/km
Outer sheath, material	PP-EPDM

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## Technical data

### Cable

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
Halogen-free	in accordance with DIN VDE 0472 part 815
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-25 °C ... 105 °C (cable, flexible installation)

## Classifications

### eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27279218

### ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

### UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

## Accessories

Accessories

Cutting tools

## Sensor/Actuator cable - SAC-4P-5,0-600/M12FS SH HD - 1403987

### Accessories

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

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### 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

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Adapter - SAC BIT M12-W14 - 1212513



SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, with 4 mm hexagonal drive

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### 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

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Stripping tool - WIREFOX 10 - 1212150



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

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### 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

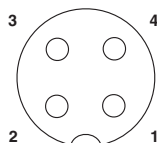
Torque screwdriver - TSD-M 1,2NM - 1212224



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

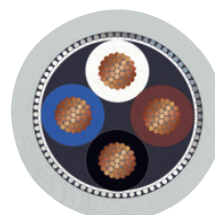
## Drawings

Schematic diagram



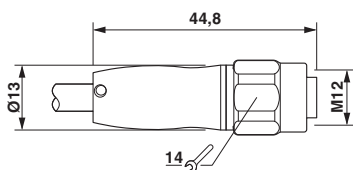
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



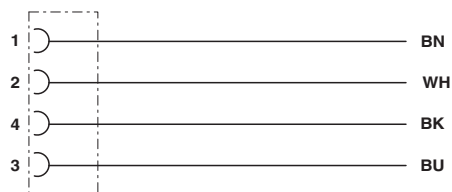
Halogen-free PP gray shielded [600]

Dimensioned drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket