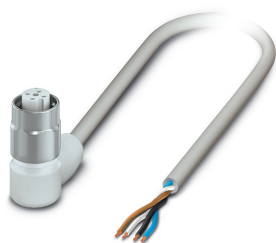


## Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

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Sensor/actuator cable, 4-position, PP-EPDM, gray RAL 7035, free cable end, on Socket angled 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
- ✓ Stainless steel type 1.4404 used to provide corrosion protection for all exposed metal parts
- ✓ Contamination can be detected quickly – thanks to the light color



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 677172
GTIN	4046356677172

### Technical data

#### Dimensions

Length of cable	3 m
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#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
	-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 AC
	250 V DC

# Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

## 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	Li9Y9Y
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
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	48 mm
Outer sheath thickness	approx. 0.8 mm
External cable diameter D	4.7 mm ±0.15 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	4000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s

# Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

## Technical data

### Cable

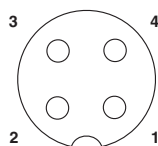
Acceleration	10 m/s <sup>2</sup>
Torsion force	± 270 °/m
Torsion cycles	≥ 4000000
Torsional frequency	≤ 25 (Torsion cycles/min)
Cable weight	30 kg/km
External sheath, color	gray RAL 7035
Outer sheath, material	PP-EPDM
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 1 GΩ*km
Conductor resistance	approx. 58 MΩ/km
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	partly suitable for use with drag chain
Other resistance	Resistant to cold bending and cold impacts According to DIN EN 60811-1-4 (-40 °C)
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)

### Environmental Product Compliance

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

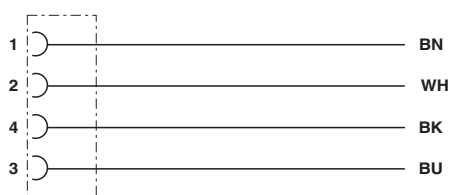
## Drawings

Schematic diagram



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

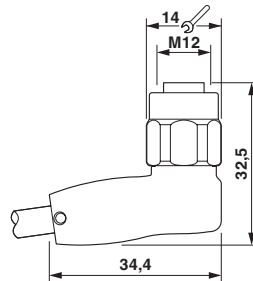
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

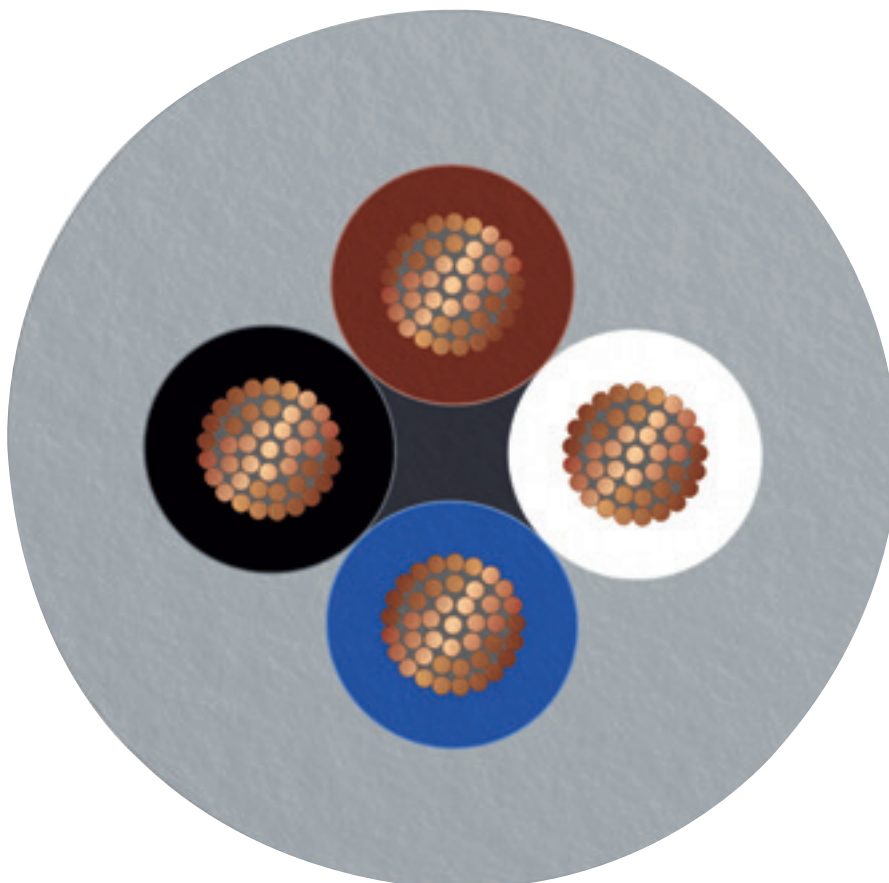
# Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

Dimensional drawing



M12 x 1 socket, angled

Cable cross section



# Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

## Classifications

### eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 11.0	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 9.0	27060311

### ETIM

ETIM 3.0	EC001855
ETIM 4.0	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

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Approvals


EAC-RoHS / EAC

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Ex Approvals

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### Approval details

EAC-RoHS		RU D- DE.HB35.B.00387
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# Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

## Approvals

EAC		RU C- DE.BL08.B.00286
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## Accessories

### Accessories

### Cutting tools

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

Tool - 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

## Sensor/actuator cable - SAC-4P-3,0-600/M12FR HD - 1403961

### Accessories

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

Torque screwdriver - TSD 04 SAC - 1208429



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

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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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