

Sensor/actuator cable - SAC-4P-MS/0,6-600/M12FR-3L HD - 1403977

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Sensor/actuator cable, 4-position, PP-EPDM halogen-free, gray RAL 7035, Plug straight M12, A-coded, on Socket angled M12, A-coded, with 3 LEDs, cable length: 0.6 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
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics

RoHS

Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 677332
GTIN	4046356677332

Technical data

Dimensions

Length of cable	0.6 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	24 V
	24 V DC

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Technical data

General

Number of positions	4
Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
	Material conformance FDA 21 CFR 177.2600
Status display	3 LEDs
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

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Standard designation	Material conformance
Standards/regulations	FDA 21 CFR 177.2600

Cable

Cable type	Halogen-free PP gray
Cable type (abbreviation)	600
Cable abbreviation	Li9Y9Y
Conductor cross section	4x 0.34 mm ² (Signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm $\pm$ 0.02 mm (Signal line)
Thickness, insulation	$\geq 0.21 \text{ mm}$ (Core insulation)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	48 mm
External sheath, color	gray RAL 7035
Outer sheath thickness	approx. 0.8 mm
External cable diameter D	4.7 mm $\pm$ 0.15 mm
Minimum bending radius, fixed installation	5 x D

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Technical data

Cable

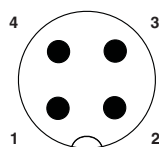
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	4000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²
Torsion force	± 270 °/m (4,000,000 torsion cycles, max. 25 torsion cycles/min)
Cable weight	30 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)
Special properties	FDA compliant according to FDA 21 CFR 177.2600
	highly 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 = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

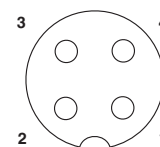
Drawings

Schematic diagram



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

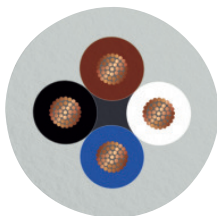
Schematic diagram



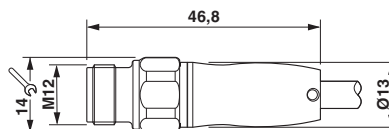
Pin assignment M12 socket, 4-pos., A-coded, view female side

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Cable cross section



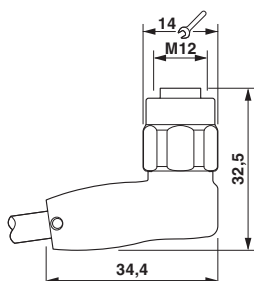
Dimensional drawing



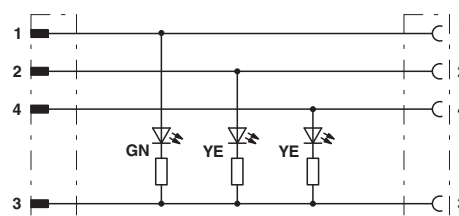
Halogen-free PP gray [600]

Plug, M12 x 1, straight, shielded

Dimensional drawing



Circuit diagram



Contact assignment of the M12 plug and the M12 socket

Socket M12 x 1, angled, with LED