

Sensor/Actuator cable - SAC-4P-M12MS/1,5-800/M12FR-3L - 1567199

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Sensor/Actuator cable, 4-position, PUR halogen-free, welding sputter-resistant, highly flexible, Gray RAL 7001, Plug straight M12, A-coded, on Socket angled M12, A-coded, with 3 LEDs, Cable length: 1.5 m, for robots and drag chains

Why buy this product

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Flexible: cable supports a high degree of torsion and bending
- ✓ Reliable solution for the body shop as cable is resistant to welding sparks
- ✓ Convenient: increased machine availability thanks to quick and easy diagnostics



Key commercial data

Packing unit	1 pc
GTIN	 4 046356 326988
Weight per Piece (excluding packing)	68.1 g
Custom tariff number	85444290
Country of origin	Poland
Note	Made to Order (non-returnable)

Technical data

Dimensions

Length of cable	1.5 m
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Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
Degree of protection	IP65
	IP67
	IP68

General

Rated current at 40°C	4 A
Rated voltage	24 V
Number of positions	4

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Technical data

General

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	3 LEDs
Protective circuit/component	Unwired
Surge voltage category	II
Pollution degree	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Inflammability class according to UL 94	HB
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR

Cable

Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable type	Gray, highly flexible PUR
Cable type (abbreviation)	800
Cable abbreviation	Li12YYTPE-HF
UL AWM style	20233 (80°C/300 V)
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	1.3 mm \pm 0.05 mm (signal line)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	Gray RAL 7001
External cable diameter D	4.8 mm \pm 0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s ²

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Technical data

Cable

Torsion force	± 360 °/m
Cable weight	33.5 kg/km
Outer sheath, material	PUR
Material conductor insulation	PES
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	approx. 53 Ω/km
Nominal voltage, cable	300 V
Test voltage, cable	2000 V
Special properties	Sheath resistant to welding beads, can be recycled, matt, without adhesion, wear-resistant, flame resistant and self-extinguishing
	Free from silicone and cadmium
	Free of substances which would hinder coating with paint or varnish
Flame resistance	DIN VDE 0472 part 804, test type B
	IEC 60332-1
	in accordance with FT1 as per UL 758
Halogen-free	The cable is halogen-free
Resistance to oil	Excellent oil-resistance (as per DIN VDE 0250 T.407)
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 90 °C (cable, flexible installation)
	to 120 °C (for 3000 h)

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
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Classifications

UNSPSC

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

Approvals

Approvals


Approvals


UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals


Approvals submitted

Approval details

UL Listed 	
Nominal current I _N	4 A
Nominal voltage U _N	24 V

cUL Listed 	
Nominal current I _N	4 A
Nominal voltage U _N	24 V

EAC

cULus Listed 
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Accessories

Accessories

Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

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



Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

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



Screwdriver tools

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

Torque tool

Torque screwdriver - TSD 04 SAC - 1208429

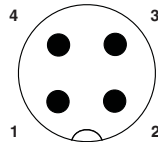


Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Drawings

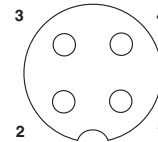
Sensor/Actuator cable - SAC-4P-M12MS/1,5-800/M12FR-3L - 1567199

Schematic diagram



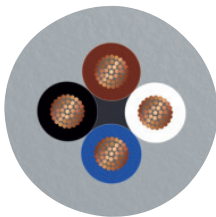
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



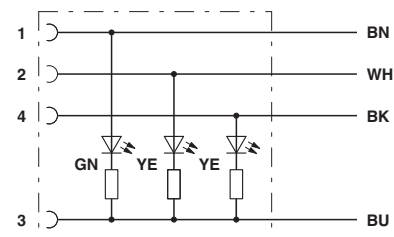
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



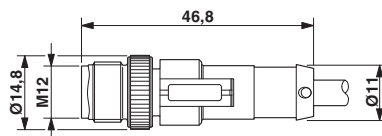
Gray, highly flexible PUR [800]

Circuit diagram



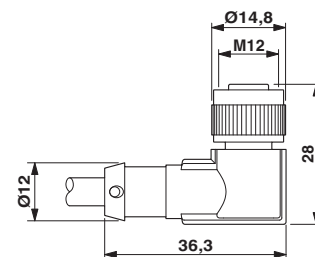
Contact assignment of the M12 plug and the M12 socket

Dimensioned drawing



M12 x 1 plug, straight

Dimensioned drawing



Socket M12 x 1, angled, with LED