

## Sensor/actuator cable - SAC-8P-M12MS/20,0-680 FDN - 1095786


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Sensor/actuator cable, 8-position, PVC, gray, shielded, Plug straight M12, coding: A, on free cable end, cable length: 20 m, Foil shielding plus drain wire



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 927374
GTIN	4055626927374
Country of origin	United States

### Technical data

#### Dimensions

Length of cable	20 m
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#### Ambient conditions

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

#### General

Rated current at 40°C	2 A
Rated voltage	30 V AC
	30 V DC
Number of positions	8

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## Technical data

### General

Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
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

Flammability rating according to UL 94	HB
Contact material	CuZn
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

### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
Flammability rating according to UL 94	HB

### Cable

Cable type	PVC, gray, 105°C
Cable type (abbreviation)	680
UL AWM style	2517 (105 °C / 300 V)
AWG signal line	24
Core diameter including insulation	1.12 mm ±0.03 mm
Wire colors	white, brown, green, yellow, gray, pink, blue, red
Type of pair shielding	Plastic-coated aluminum foil, aluminum side inside
Overall twist	Conductors, fillers, and drain wire are twisted with left-hand lay
Shielding	Plastic-coated aluminum foil connection with a drain wire
External sheath, color	gray
External cable diameter D	5.79 mm ±0.2 mm
Minimum bending radius, flexible installation	8 x D
Cable weight	47.37 kg/km
Outer sheath, material	PVC
Material conductor insulation	PVC (Signal line)
Conductor material	Tin-plated Cu litz wires

# Sensor/actuator cable - SAC-8P-M12MS/20,0-680 FDN - 1095786

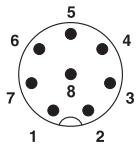
## Technical data

### Cable

Insulation resistance	$\geq$ (550 M Ohms/m @ 500V)
Conductor resistance	max. 80.2 $\Omega$ /km (20 °C)
Nominal voltage, cable	300 V
Other resistance	UV resistant
Flame resistance	FT4
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)

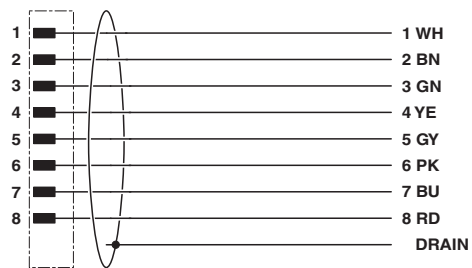
## Drawings

Schematic diagram



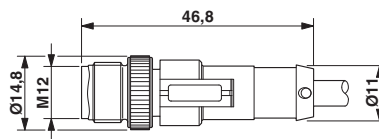
Pin assignment M12 plug, 8-pos., A-coded, view plug side

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

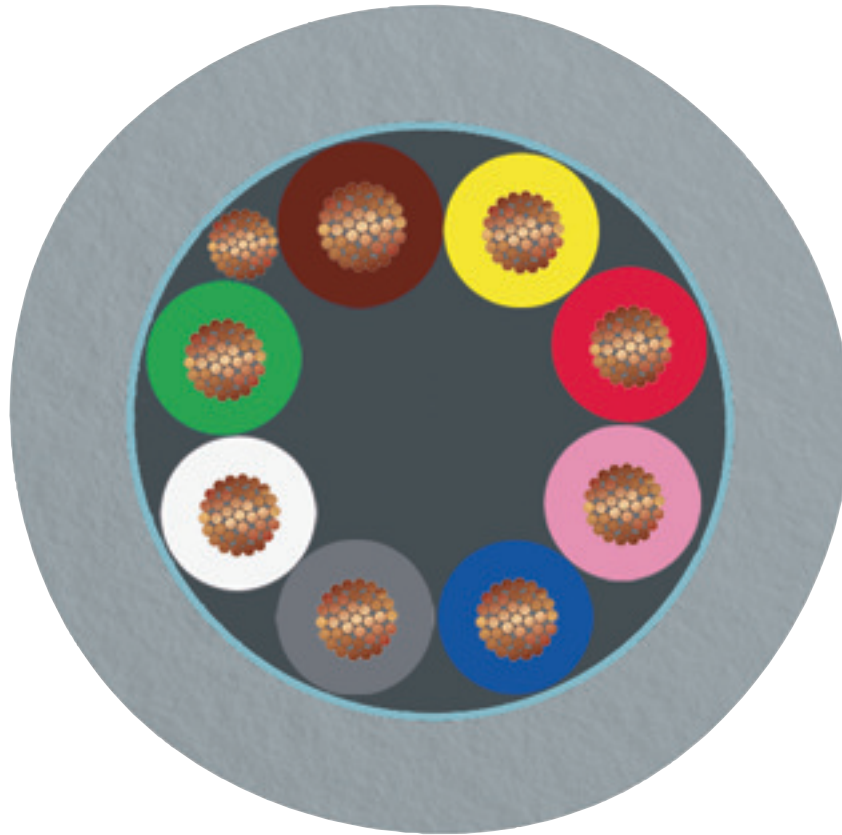
Dimensional drawing



Plug, M12 x 1, straight

# Sensor/actuator cable - SAC-8P-M12MS/20,0-680 FDN - 1095786

Cable cross section



## Classifications

eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 11.0	27060311
eCl@ss 9.0	27060311

## Approvals

Approvals

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# Sensor/actuator cable - SAC-8P-M12MS/20,0-680 FDN - 1095786

## Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 221474
Nominal voltage UN		30 V	
Nominal current IN		2 A	

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 221474
Nominal voltage UN		30 V	
Nominal current IN		2 A	

cULus Listed			
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## Accessories

Accessories

Conductor marking

Insert label - PABA WH/23 - 1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

## Sensor/actuator cable - SAC-8P-M12MS/20,0-680 FDN - 1095786

### Accessories

Insert label - PABA YE/23 - 1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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### Plug for cable screw gland

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



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

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### 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 plugs

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### Safety locking

## Sensor/actuator cable - SAC-8P-M12MS/20,0-680 FDN - 1095786

### Accessories

Locking clip - SAC-M12-EXCLIP-M - 1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Locking clip - SAC-M12-EXCLIP-F - 1558991



Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

### 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-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, 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

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### Accessories

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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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