

## Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750


Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 20 m, Customer version

RoHS

### Key Commercial Data

Packing unit	1
GTIN	 4 046356 827577
GTIN	4046356827577
Custom tariff number	85444290

### Technical data

#### Dimensions

Length of cable	20 m
-----------------	------

#### Ambient conditions

Degree of protection	IP65
	IP67

#### General

Rated current at 40°C	2 A
Rated voltage	30 V AC
	30 V DC
Number of positions	8
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector

## Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

### Technical data

#### General

Status display	No
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100

#### 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
Sealing material	NBR

#### Standards and Regulations

Standards/specifications	M12 connector
Flame resistance	in accordance with DIN UL-Style 20549
	in acc. with UL FT-2
Resistance to oil	in accordance with DIN EN 60811-2-1
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
Flammability rating according to UL 94	HB

#### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	513
Cable abbreviation	Li9Y-St-11Y
UL AWM style	20549 / 10493 (80°C/300 V)
Conductor cross section	7x 0.25 mm <sup>2</sup> (Signal line)
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm
Wire colors	white, brown, green, yellow, gray, pink, blue
Overall twist	Seven wires around the filler to the core
Shielding	Plastic-coated aluminum foil with a drain wire
External sheath, color	black-gray RAL 7021

## Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

### Technical data

#### Cable

Outer sheath thickness	≥ 0.38 mm
External cable diameter D	6 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	30000
Bending radius	50 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	49 kg/km
Outer sheath, material	PUR
Material, filler	PE
Material conductor insulation	PP
Shielding material	AI19PES23
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Conductor resistance	≤ 78 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	not suited to drag chain applications
Flame resistance	in accordance with DIN UL-Style 20549
	in accordance with UL 758/1581 FT2
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (cable, flexible installation)

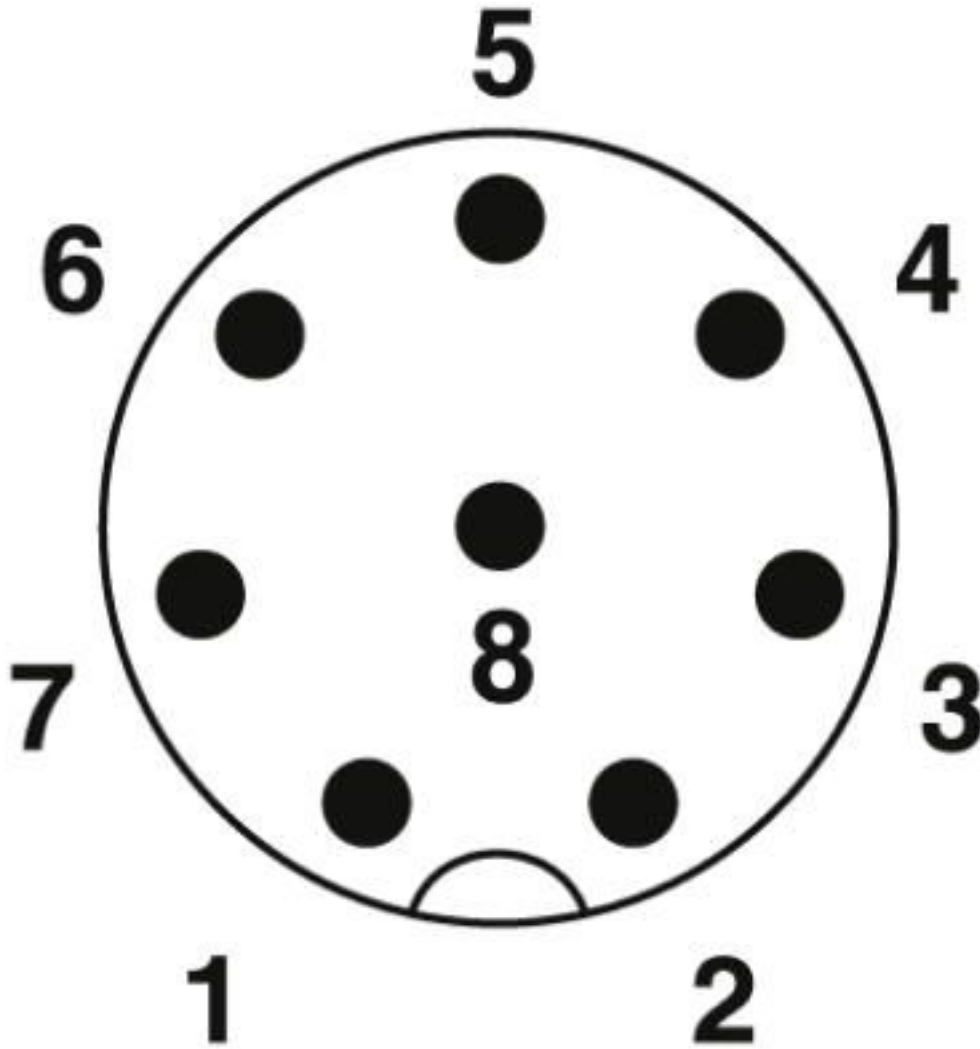
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

# Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

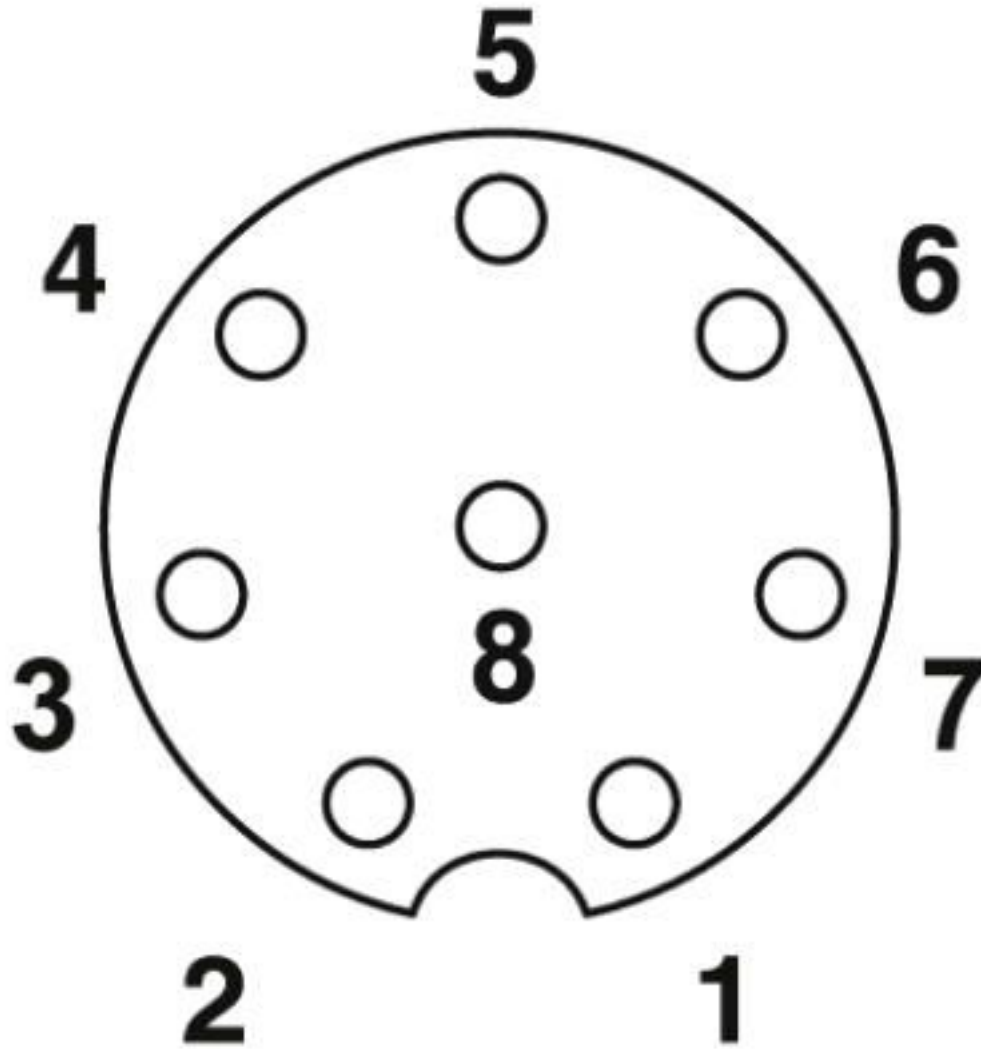
Schematic diagram



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

# Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

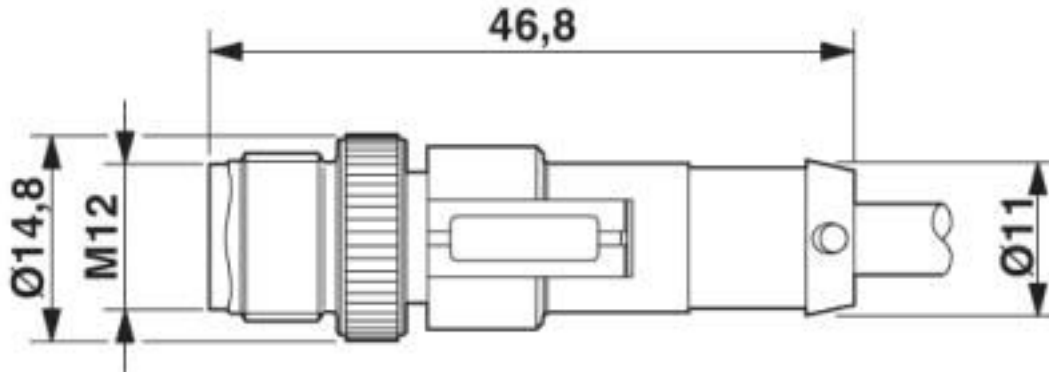
Schematic diagram



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

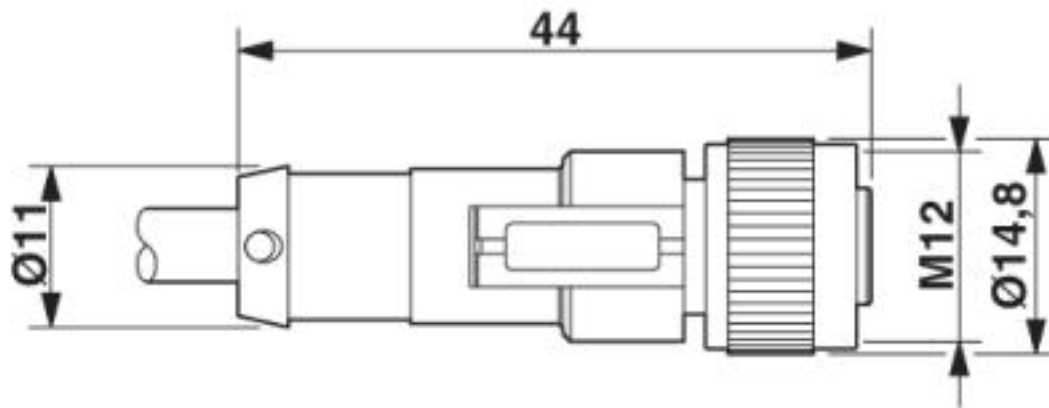
## Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

Dimensional drawing



Plug, M12 x 1, straight, shielded

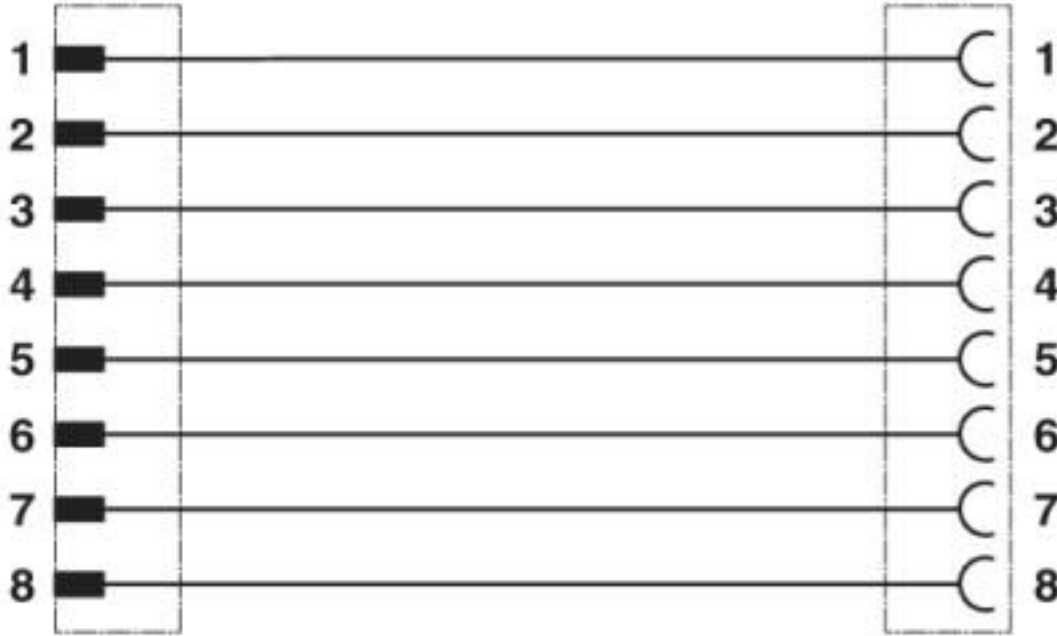
Dimensional drawing



M12 x 1 socket, straight

# Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

## Classifications

eCl@ss

eCl@ss 10.0.1	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 8.0	27279218
eCl@ss 9.0	27060311

ETIM

ETIM 3.0	EC001855
ETIM 5.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855

## Sensor/actuator cable - SAC-8P-M12MS/20-513/M12FS SH8 - 1408750

### Classifications

#### 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