

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

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, PVC, yellow, shielded, Plug angled M12 SPEEDCON, coding: A, on Socket angled M12 SPEEDCON, coding: A, cable length: 0.5 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 799706
GTIN	4046356799706
Weight per Piece (excluding packing)	50.000 g
Custom tariff number	85444290
Country of origin	United States

Technical data

Dimensions

Length of cable	0.5 m
-----------------	-------

Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
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

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Technical data

General

Color handle area	black
Insulation resistance	$\geq 100 \text{ M}\Omega$
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
Sealing material	NBR

Standards and Regulations

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

Cable

Cable type	PVC yellow 105 °C
Cable type (abbreviation)	542
UL AWM style	2517 (105 °C / 300 V)
AWG signal line	24
Conductor structure signal line	32x 1.10 mm
Core diameter including insulation	1.12 mm ± 0.03 mm
Wire colors	white, brown, green, yellow, gray, pink, blue, red
Overall twist	8 wires around filler to the core
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	yellow
External cable diameter D	6.3 mm ± 0.2 mm
Minimum bending radius, flexible installation	12 x D
Cable weight	58 kg/km

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Technical data

Cable

Outer sheath, material	PVC
Material, filler	PP
Material conductor insulation	PVC
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq$ (550 M Ohms/m @ 500V)
Conductor resistance	max. 79.7 Ω /km (20 °C)
Nominal voltage, cable	300 V
Flame resistance	FT1, VW-1
Other resistance	UV resistant
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)
	-5 °C ... 105 °C (cable, flexible installation)

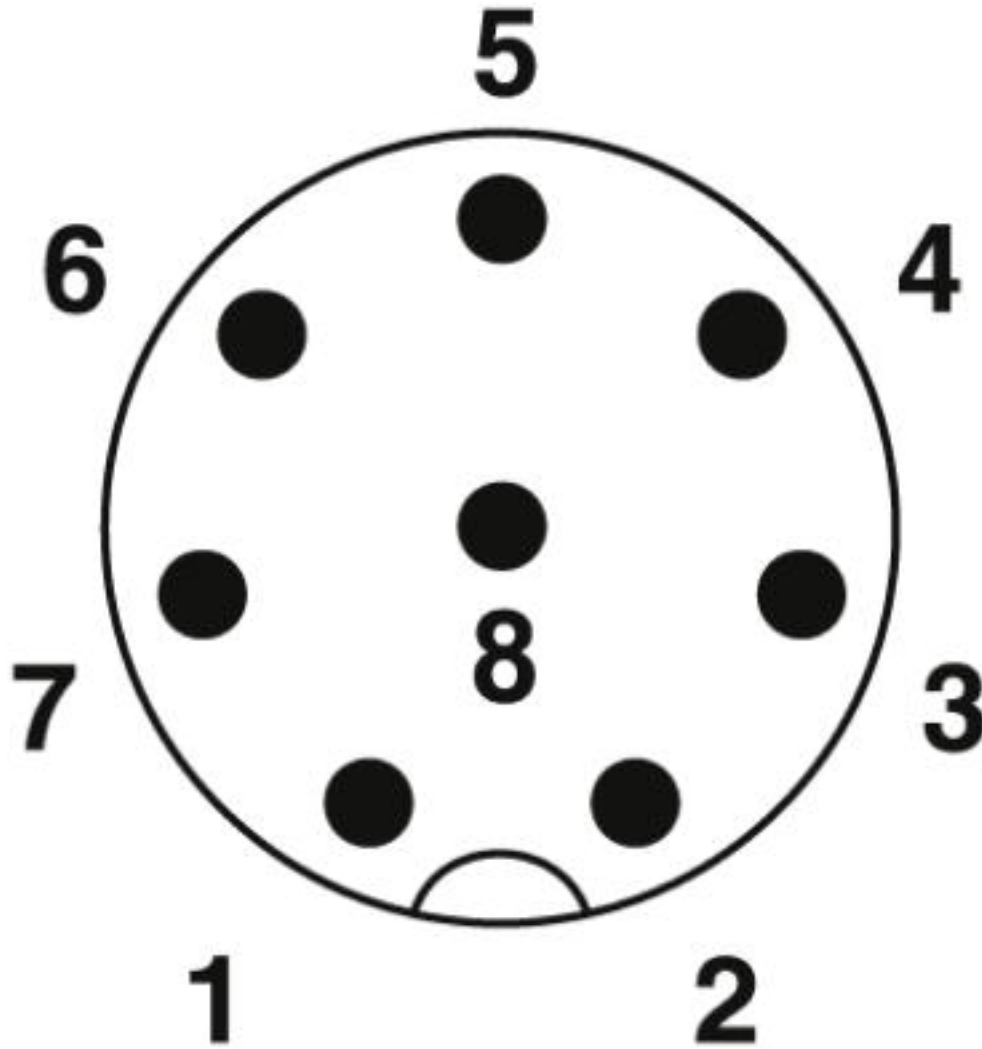
Environmental Product Compliance

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-MR/0,5-542/ FRSH SCO BK - 1406077

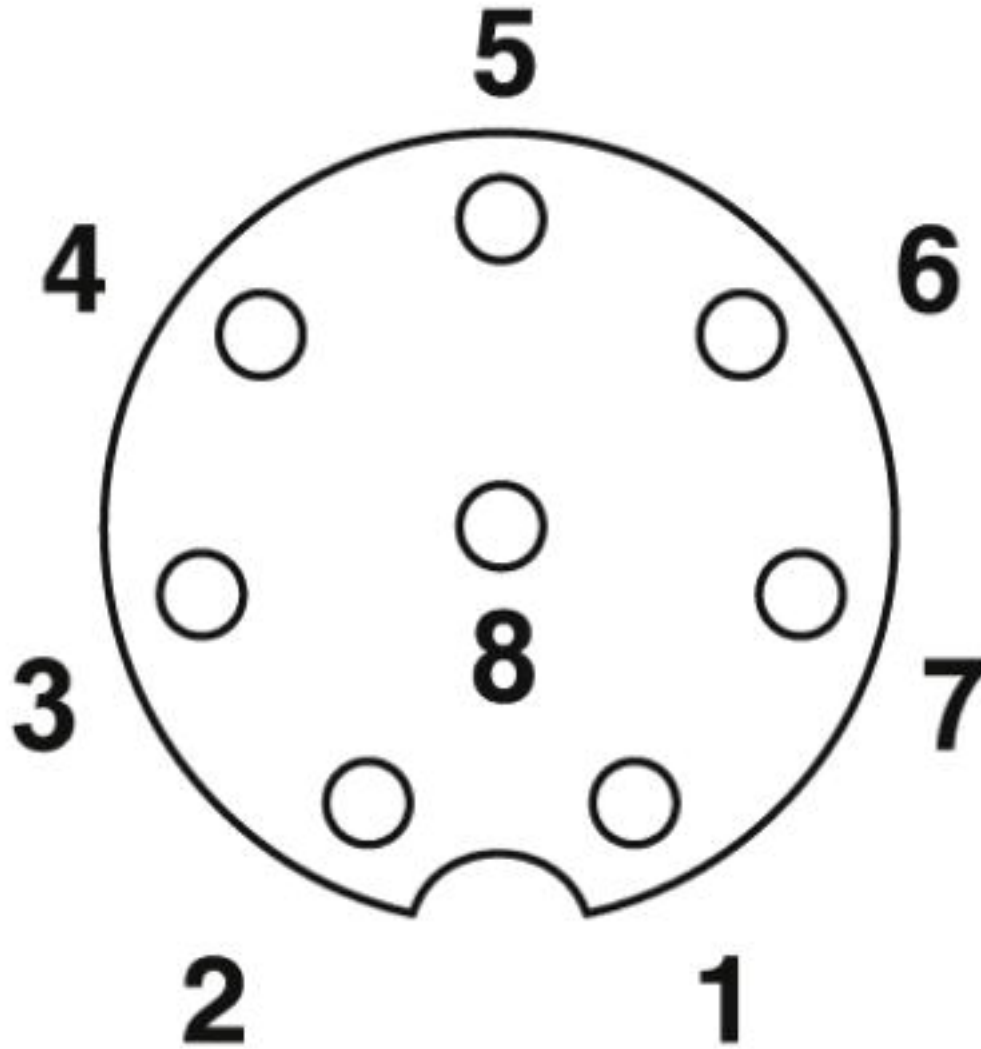
Schematic diagram



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

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

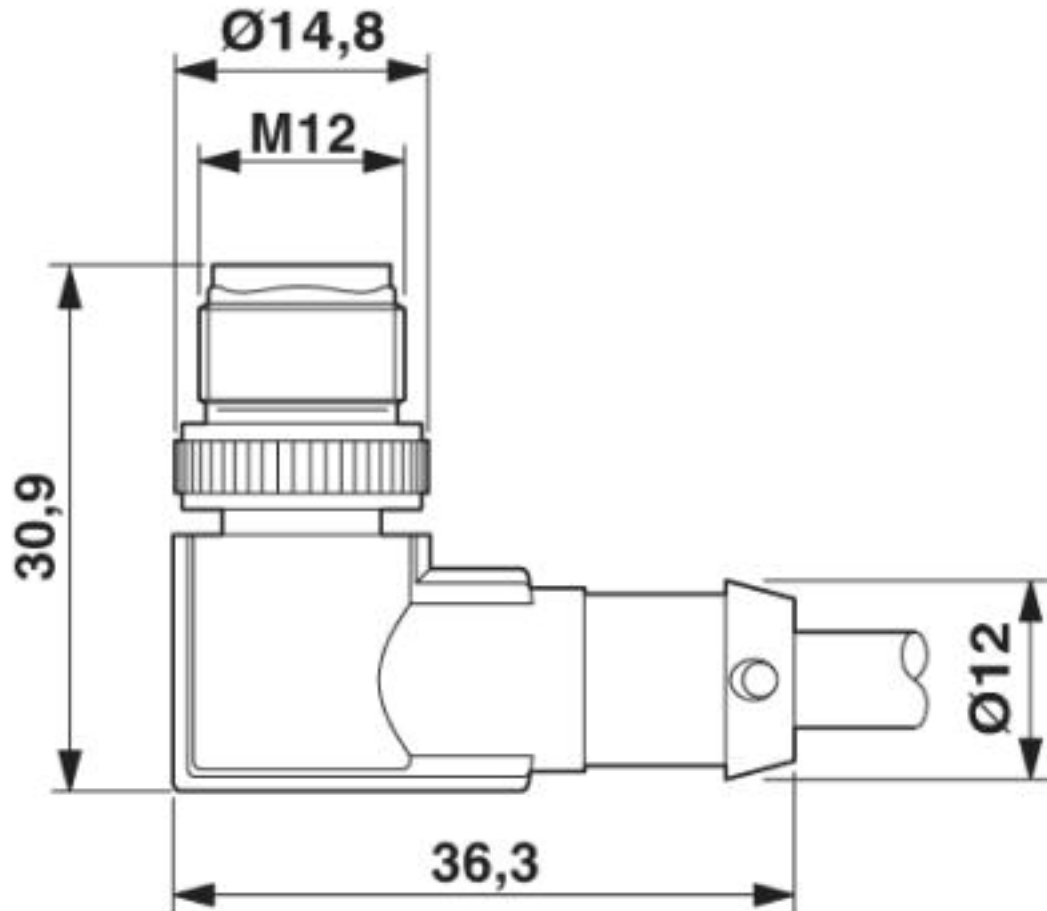
Schematic diagram



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

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

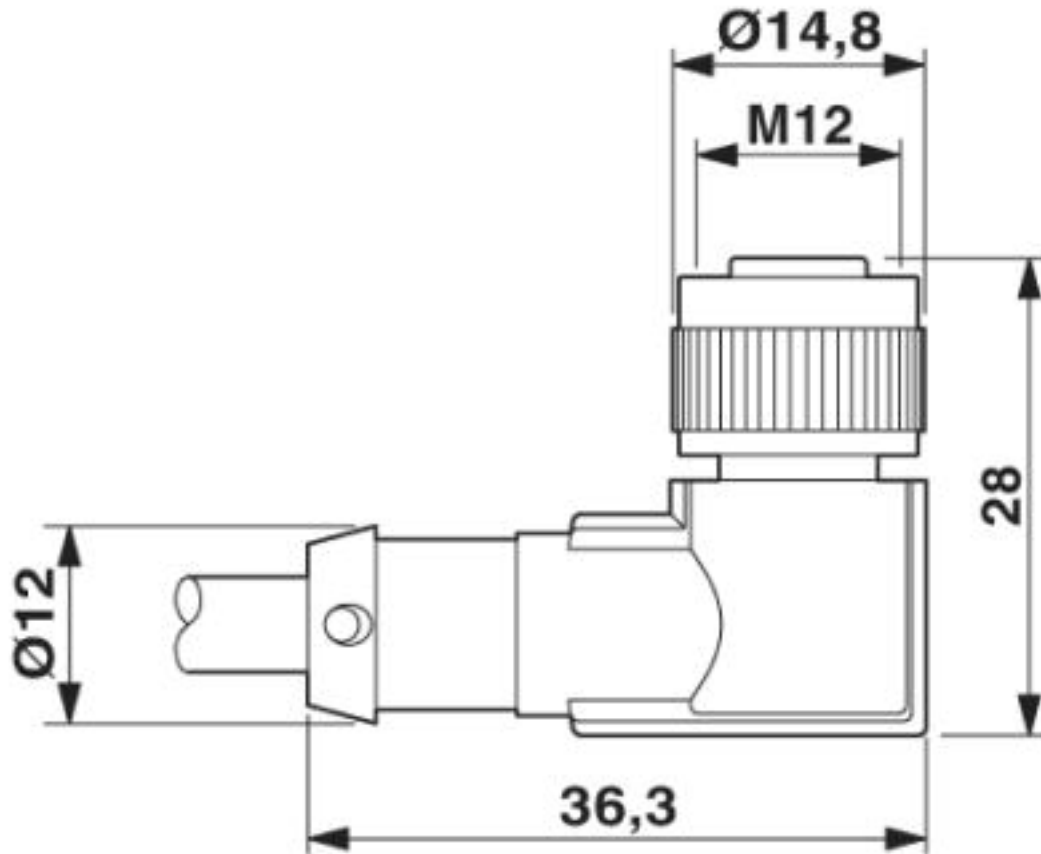
Dimensional drawing



M12 x 1 male plug, angled, shielded

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

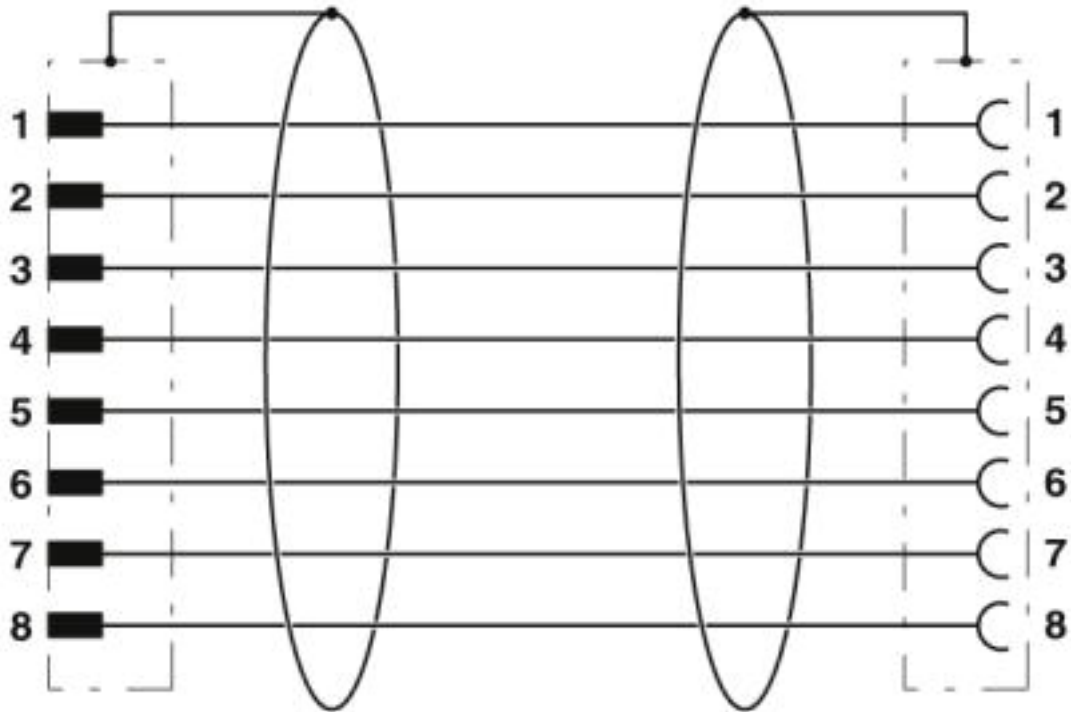
Dimensional drawing



M12 x 1 socket, angled, shielded

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Cable cross section



PVC yellow 105 °C [542]

Classifications

eCl@ss

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

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Classifications

eCl@ss

eCl@ss 9.0	27060311
------------	----------

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	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

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

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

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Approvals

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

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

cULus Listed	
--------------	---

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

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

Marker pen

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Accessories

Marker pen - B-STIFT - 1051993



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

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

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

Safety locking

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

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Accessories

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

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

Sensor/actuator cable - SAC-8P-MR/0,5-542/ FRSH SCO BK - 1406077

Accessories

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>