SAC-12P-MS/10,0-35T/FS SH SCO - Sensor/actuator cable

1409253

https://www.phoenixcontact.com/us/products/1409253

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Sensor/actuator cable, 12-pos., PUR/PVC, RAL 9005 (black), shielded, straight M12-SPEEDCON plug (A-coded) to straight M12-SPEEDCON socket (A-coded), cable length: 10 m

Commercial data

Item number	1409253
Packing unit	1 pc
Minimum order quantity	25 pc
Sales key	BF03
Product key	AF1CNA
GTIN	4046356865296
Weight per piece (including packing)	951.3 g
Weight per piece (excluding packing)	943 g
Customs tariff number	85444290
Country of origin	DE

Technical data

Product properties

Product type	Sensor/actuator cable
Number of positions	12
No. of cable outlets	1
Shielded	yes
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Material grommet GRP	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	30 V AC
	30 V DC
Nominal current I_N	1.5 A

Signaling

Status display	no
Status display present	no

Connector

Connection 1

Type	Plug straight M12 SPEEDCON
Number of positions	12
Locking type	SPEEDCON
Coding type	A

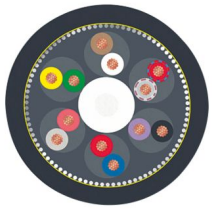
Connection 2

Type	Socket straight M12 SPEEDCON
Number of positions	12
Locking type	SPEEDCON
Coding type	A

Cable/line

Cable length	10 m

Black PUR/PVC twisted pair [35T]

Dimensional drawing	
Cable weight	87 kg/km
UL AWM Style	20233 / 1061 (80°C/300 V)
Number of positions	12
Shielded	yes
Cable type	Black PUR/PVC twisted pair [35T]
Conductor structure signal line	18x 0.10 mm
AWG signal line	26
Conductor cross-section	12x 0.14 mm² (Signal line)
Wire diameter incl. insulation	1 mm ±0.05 mm (Signal line)
External cable diameter	8.50 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PVC
Single wire, color	white-brown, green-yellow, gray-pink, blue-red, black-violet, gray/pink-red/blue
Twisted pairs	2 cores to the pair
Overall twist	Six pairs around the filler to the core
Optical shield covering	85 %
Max. conductor resistance	≤ 142 Ω/km (at 20 °C)
Insulation resistance	≥ 10 MΩ*km (at 20 °C)
Nominal voltage, cable	42 V AC
Test voltage	1500 V AC
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	43 mm
Smallest bending radius, movable installation	85 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 85 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²
Flame resistance	According to DIN EN 60332-1-2
	According to VW-1

Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	hydrolysis and microbe resistant (in accordance with EN 50396)
Special properties	Flexible cable conduit capable
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

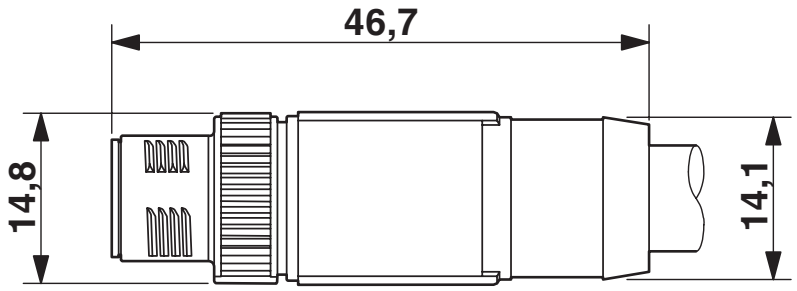
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

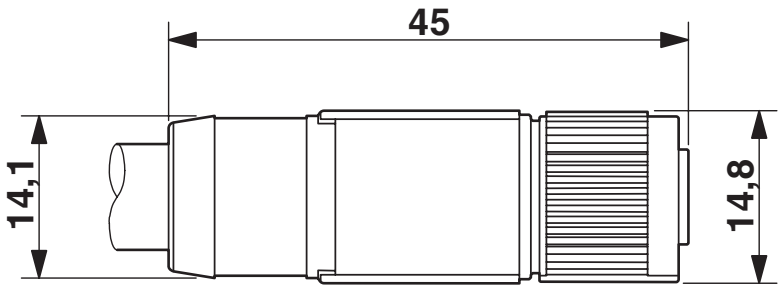
Drawings

Dimensional drawing



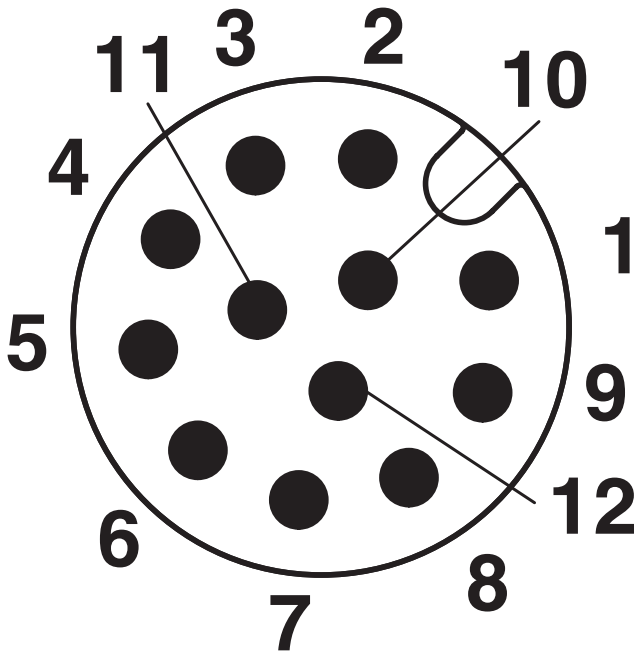
M12 SPEEDCON plug, straight, shielded

Dimensional drawing



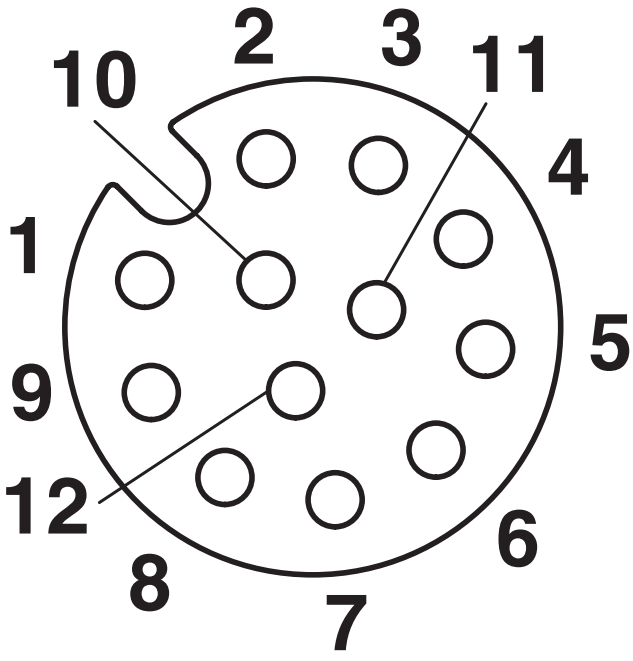
Socket M12-SPEEDCON, straight, shielded

Schematic diagram



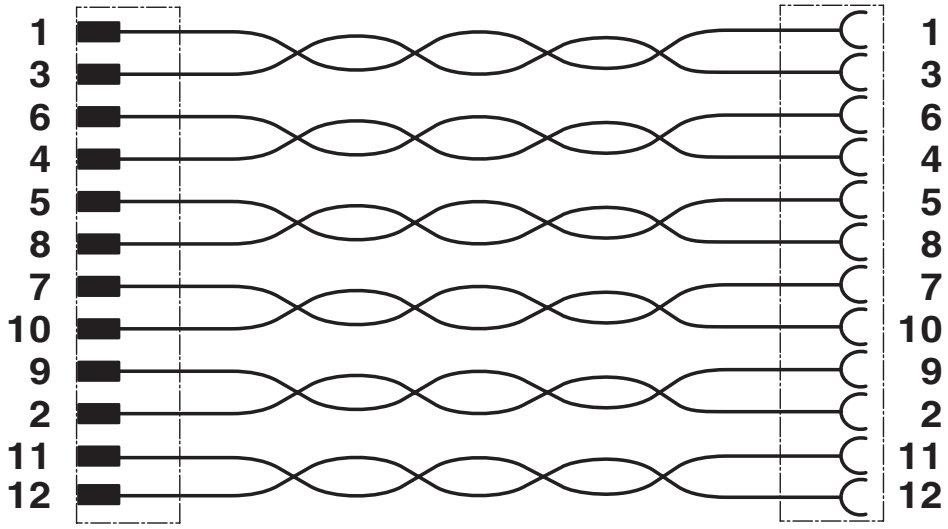
Pin assignment M12 male connector, 12-pos., male side view

Schematic diagram



Pin assignment M12, 12-pos., female side view

Circuit diagram



Contact assignment of the M12 plug and the M23 socket

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1409253

UL Listed
Approval ID: E221474

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	1 A	-	-

Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 10.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

EF3.1 Climate Change

CO2e kg	10.77 kg CO2e

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