

# SAC-8P-M12MS/ 3,0-853/M12FR HN - Sensor/actuator cable



1404953

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Sensor/actuator cable, 8-pos., PUR, black, shielded, straight M12 male plug, A-coded, to angled M12 female plug, A-coded, cable length: 3 m

## Commercial data

Item number	1404953
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Product key	AF1CMA
GTIN	4046356729611
Weight per piece (including packing)	104.5 g
Weight per piece (excluding packing)	91.75 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Sensor/actuator cable
Number of positions	8
No. of cable outlets	1
Coding	A

### Material specifications

Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

### Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	30 V AC
	30 V DC

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	≥ 100
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### Signaling

Status display	no
Status display present	no

### Connector

#### Connection 1

Type	Plug straight M12
Number of positions	8
Coding type	A

#### Connection 2

Type	Socket angled M12
Number of positions	8
Coding type	A

### Cable/line

Cable length	3 m
Cable weight	22 kg/km

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Copper weight	13.5 kg/km
UL AWM Style	20963 (80°C/30 V)
Number of positions	8
Shielded	yes
Conductor structure	4x2xAWG28/19; S/UTP
Conductor structure signal line	19x 0.08 mm
AWG signal line	28
Conductor cross-section	4x 2x 0.09 mm <sup>2</sup>
Wire diameter incl. insulation	0.6 mm
External cable diameter	3.70 mm ±0.1 mm
Outer sheath, material	PUR
External sheath, color	black
Conductor material	Tin-plated Cu litz wires
Material, filler	Yarn
Material wire insulation	TPE
Thickness, outer sheath	nom. 0.45 mm
Twisted pairs	2 cores to the pair
Overall twist	Four pairs and four fillers to the core
Optical shield covering	85 %
Shield resistance	approx. 36.00 Ω/km
Max. conductor resistance	≤ 222 Ω/km
Insulation resistance	≥ 200 MΩ*km
Cable capacity	nom. 110 pF/m (Within a pair of wires)
Nominal voltage, cable	30 V
Test voltage Core/Core	0.5 kV (50 Hz, 1 min.)
Test voltage Core/Shield	0.50 kV (50 Hz, 1 min.)
Smallest bending radius, fixed installation	10 mm
Smallest bending radius, movable installation	50 mm
Dynamic load capacity (bending)	Max. bending cycles: 3000000
Flame resistance	in accordance with EN 50265-2-1 in acc. to UL VW1
Other resistance	Hydrolysis-resistant (In accordance with D 253 377-02-A-01 F83558) Media resistance (In accordance with D 253 377-02-A-01 F83558)
Special properties	Silicone-free PVC-free
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -10 °C ... 80 °C (Cable, flexible installation) 100 °C (with limited hydrolysis/media resistance)

## Environmental and real-life conditions

### Ambient conditions

IP65

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Degree of protection	IP67
	IP68

## Standards and regulations

Standard designation	M12 connector
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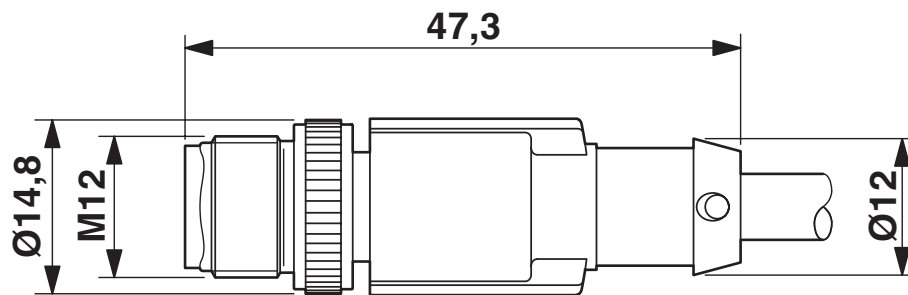
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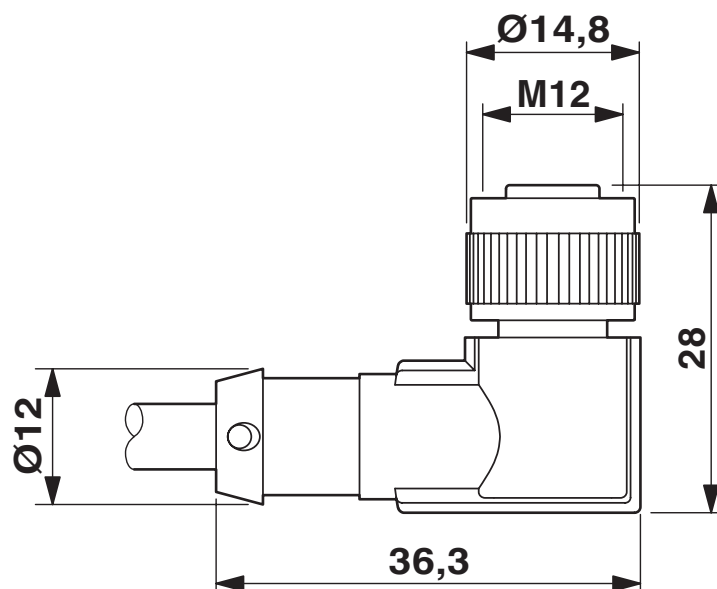
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



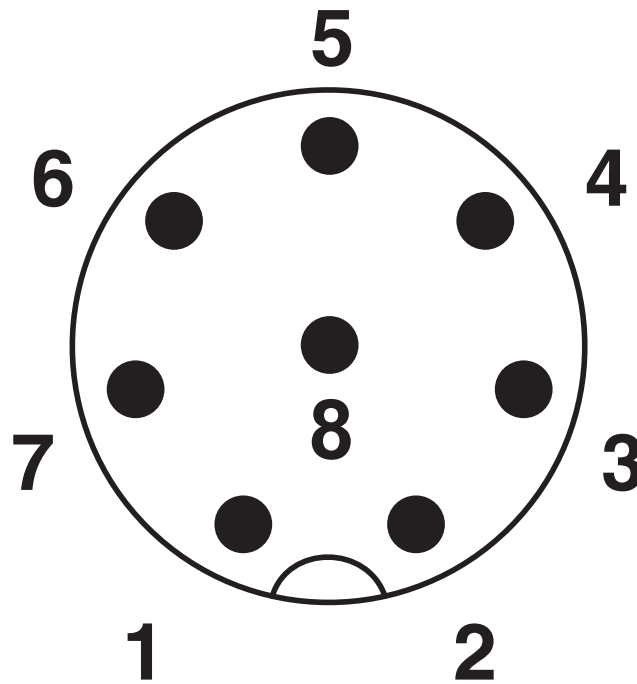
M12 x 1 socket, angled, shielded

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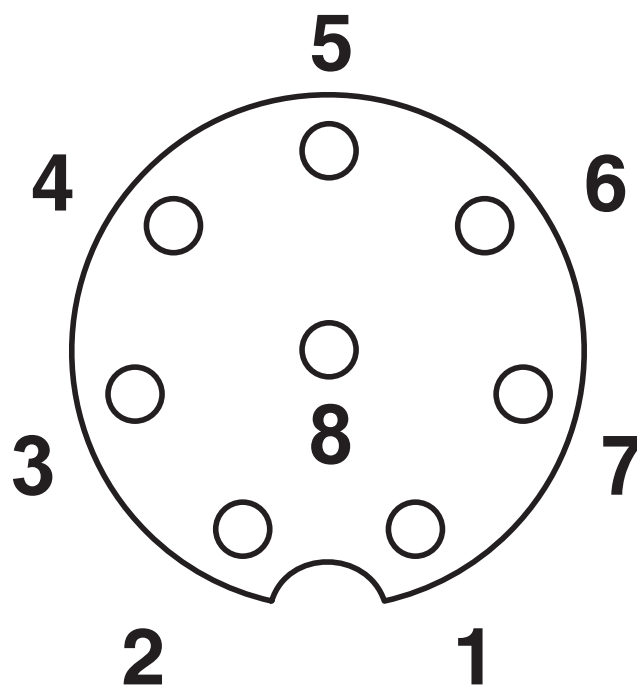
<https://www.phoenixcontact.com/us/products/1404953>

Schematic diagram



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

Schematic diagram



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

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

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

### EU REACH SVHC

REACH candidate substance (CAS No.)	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus™")(CAS: n/a)
SCIP	e3d9abc4-8e31-4664-b52a-05871e05172d

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