

SAC-8P-M12MS/ 3,0-853/M12FS HN - Sensor/actuator cable



1404947

<https://www.phoenixcontact.com/us/products/1404947>

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

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1404947 |
| Packing unit | 1 pc |
| Minimum order quantity | 10 pc |
| Product key | AF1CMA |
| GTIN | 4046356729550 |
| Weight per piece (including packing) | 105 g |
| Weight per piece (excluding packing) | 105 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 _N | 30 V AC |
| | 30 V DC |

Mechanical properties

Mechanical data

| | |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|-------|

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 straight 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 ² |
| 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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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

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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 |
|---|--------------------|

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

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" TM)(CAS: n/a) |
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com