

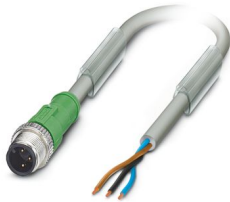
SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

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 documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 3-position, PUR halogen-free, resistant to welding sparks, highly flexible, gray RAL 7001, Plug straight M12, coding: A, on free cable end, cable length: 10 m, for robots and drag chains

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Reliable solution for the body shop as cable is resistant to welding sparks

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1456763 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF03 |
| Product key | AF1CBA |
| GTIN | 4046356593120 |
| Weight per piece (including packing) | 262 g |
| Weight per piece (excluding packing) | 261 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

Technical data

Product properties

| | |
|----------------------|------------------------|
| Product type | Sensor/actuator cable |
| Application | Robots and drag chains |
| Number of positions | 3 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | A |

Insulation characteristics

| | |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution | 3 |

Material specifications

| | |
|--|---|
| Flammability rating according to UL 94 | HB |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Contact material | CuSn |
| 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 | 250 V AC |
| | 250 V DC |
| Nominal current I _N | 4 A |

Mechanical properties

Mechanical data

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

Signaling

| | |
|------------------------|----|
| Status display | no |
| Status display present | no |

Connection data

Conductor connection

| | |
|-------------------|------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
|-------------------|------------------------|

Connector

Connection 1

| | |
|------|-------------------|
| Type | Plug straight M12 |
|------|-------------------|

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

| | |
|---------------------|---|
| Number of positions | 3 |
| Coding type | A |

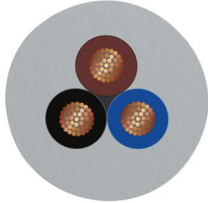
Connection 2

| | |
|------|----------------|
| Type | free cable end |
|------|----------------|

Cable/line

| | |
|--------------|------|
| Cable length | 10 m |
|--------------|------|

Gray, highly flexible PUR [800]

| | |
|---|--|
| Dimensional drawing |  |
| Note | Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments. |
| Cable weight | 28.3 kg/km |
| UL AWM Style | 20549 |
| Number of positions | 3 |
| Shielded | no |
| Cable type | Gray, highly flexible PUR [800] |
| Conductor structure signal line | 42x 0.10 mm |
| AWG signal line | 22 |
| Conductor cross-section | 3x 0.34 mm ² (Signal line) |
| Wire diameter incl. insulation | 1.3 mm ±0.05 mm (Signal line) |
| External cable diameter | 4.50 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | gray RAL 7001 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | brown, blue, black |
| Overall twist | 3 wires, twisted |
| Max. conductor resistance | approx. 53 Ω/km |
| Insulation resistance | ≥ 20 MΩ*km |
| Nominal voltage, cable | 300 V |
| Test voltage | 2000 V |
| Minimum bending radius, fixed installation | 4 x D |
| Minimum bending radius, flexible installation | 7.5 x D |
| Smallest bending radius, fixed installation | 18 mm |
| Smallest bending radius, movable installation | 34 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 10000000, Bending radius: 7,5 x D, |

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

| | |
|---------------------------------|---|
| | Traversing path: 5 m, Traversing rate: 3.3 m/s, Acceleration: 5 m/s ² |
| | Max. bending cycles: 15000000, Bending radius: 50 mm, Traversing path: 0.9 m, Traversing rate: 5 m/s, Acceleration: 30 m/s ² |
| Dynamic load capacity (torsion) | Torsion: ±360 °/m, Torsion cycles: 1000000, Torsional frequency: 35 cycles/min. |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| Special properties | Silicone-free |
| | Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing |
| | Free from silicone and cadmium |
| Ambient temperature (operation) | Free of substances which would hinder coating with paint or varnish |
| | -40 °C ... 80 °C (cable, fixed installation) |
| | -25 °C ... 80 °C (Cable, flexible installation) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket) |
| Ambient temperature (operation) (Cable, fixed installation) | -40 °C ... 90 °C (cable, fixed installation) |
| Ambient temperature (operation) (Cable, flexible installation) | -30 °C ... 90 °C (Cable, flexible installation) |
| Ambient temperature (operation) | to 120 °C (for 3000 h) |
| | to 90 °C (in acc. with UL) |

Standards and regulations

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

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable

1456763

<https://www.phoenixcontact.com/us/products/1456763>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

Circuit diagram



Contact assignment of the M12 plug

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1456763>

|  UL Listed Approval ID: FILE E 221474 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 300 V | 4 A | - | - |

|  cUL Listed Approval ID: FILE E 221474 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 300 V | 4 A | - | - |

|  EAC-RoHS Approval ID: RU D-DE.HB35.B.00387 | |
|--|--|
|--|--|

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
| ECLASS-15.0 | 27060311 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001855 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

SAC-3P-M12MS/10,0-800 - Sensor/actuator cable



1456763

<https://www.phoenixcontact.com/us/products/1456763>

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 | 1.395 kg CO2e |
|---------|---------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com