

## Power cable - SAC-6P- 1,5-PVC/M12FSM PE - 1414905

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Power cable, 6-position, PVC, black-gray RAL 7021, Socket straight M12, coding: M, on free cable end, cable length: 1.5 m, For AC current up to 8 A/690 V

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ High-performance: AC connectors for up to 8 A and 630 V AC
- ✓ Protection against mismatching, thanks to special M-coding

RoHS

### Key Commercial Data

|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                 |
| GTIN         |  |
| GTIN         | 4055626035369                                                                        |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 1.5 m |
|-----------------|-------|

#### Ambient conditions

|                                 |                                                                            |
|---------------------------------|----------------------------------------------------------------------------|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket)                                           |
| Degree of protection            | IP65                                                                       |
|                                 | IP67 (without preloading, as additional test in accordance with IEC 60529) |

#### General

|                        |                               |
|------------------------|-------------------------------|
| Rated current at 40 °C | 8 A                           |
| Rated voltage          | 690 V AC                      |
| Number of positions    | 6                             |
| Insulation resistance  | ≥ 100 MΩ                      |
| Coding                 | M - Power                     |
| Standards/regulations  | M12 connector IEC 61076-2-111 |

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## Technical data

### General

|                              |                        |
|------------------------------|------------------------|
| Status display               | No                     |
| Protective circuit/component | unwired                |
| Overvoltage category         | III                    |
| Degree of pollution          | 3                      |
| Torque                       | 0.4 Nm (M12 connector) |

### Material

|                                        |                              |
|----------------------------------------|------------------------------|
| Flammability rating according to UL 94 | V0                           |
| Contact material                       | CuZn                         |
| Contact surface material               | Ni/Au                        |
| Contact carrier material               | PA                           |
| Material of grip body                  | PP                           |
| Material, knurls                       | Zinc die-cast, nickel-plated |

### Standards and Regulations

|                                        |                               |
|----------------------------------------|-------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-111 |
| Flammability rating according to UL 94 | V0                            |

### Cable

|                                                 |                                                           |
|-------------------------------------------------|-----------------------------------------------------------|
| UL AWM style                                    | 2570 / 10914 (80°C/1000 V)                                |
| Conductor cross section                         | 6x 1.5 mm <sup>2</sup>                                    |
| AWG power supply                                | 16                                                        |
| Conductor structure, voltage supply             | 78x 0.15 mm                                               |
| Core diameter including insulation              | 2.4 mm ±0.05 mm                                           |
| Thickness, insulation                           | ≥ 0.36 mm                                                 |
| Wire colors                                     | black 1, black 2, black 3, black 4, black 5, green/yellow |
| External sheath, color                          | black-gray RAL 7021                                       |
| Outer sheath thickness                          | approx. 0.76 mm                                           |
| External cable diameter D                       | 9.75 mm ±0.25 mm                                          |
| Minimum bending radius, fixed installation      | 5 x D                                                     |
| Minimum bending radius, flexible installation   | 10 x D                                                    |
| Number of bending cycles                        | 2000000                                                   |
| Minimum bending radius, drag chain applications | 10 x D                                                    |
| Traversing path                                 | 10 m                                                      |
| Traversing rate                                 | 3 m/s                                                     |
| Acceleration                                    | 10 m/s <sup>2</sup>                                       |
| Cable weight                                    | 220 kg/km                                                 |
| Outer sheath, material                          | PVC                                                       |
| Material conductor insulation                   | PVC                                                       |
| Conductor material                              | Bare Cu litz wires                                        |
| Insulation resistance                           | ≥ 100 MΩ*km (at 20 °C)                                    |
| Conductor resistance                            | ≤ 15 Ω/m (at 20 °C)                                       |

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### Technical data

#### Cable

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Nominal voltage, cable          | ≤ 1000 V AC                                     |
| Test voltage, cable             | ≥ 10000 V AC (Spark test)                       |
| Flame resistance                | According to UL 758/1581 (Cable Flame)          |
|                                 | according to UL 758/1581 FT1                    |
|                                 | According to DIN EN 60332-1-2                   |
| Resistance to oil               | According to DIN EN 60811-404, 168 h at 60 °C   |
| Ambient temperature (operation) | -20 °C ... 80 °C (cable, flexible installation) |

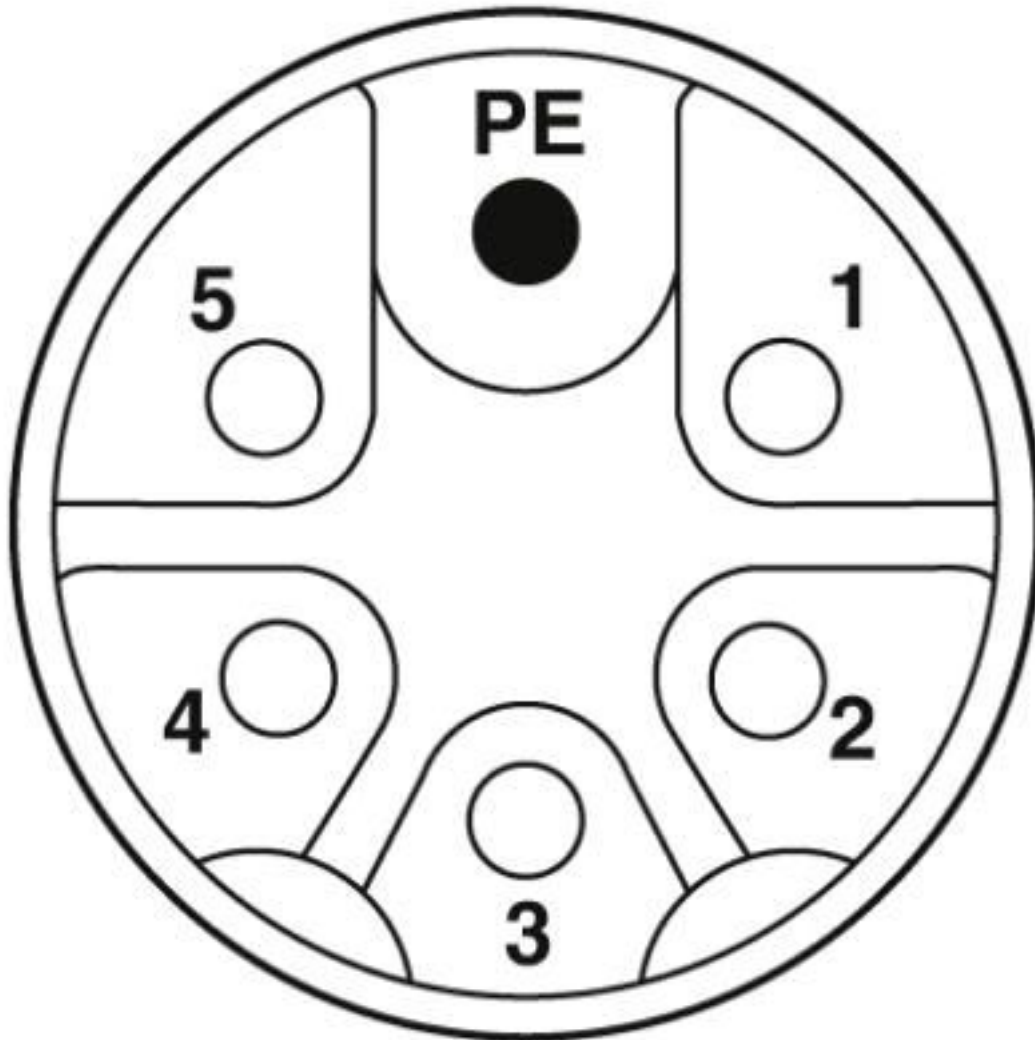
#### Environmental Product Compliance

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

## Power cable - SAC-6P- 1,5-PVC/M12FSM PE - 1414905

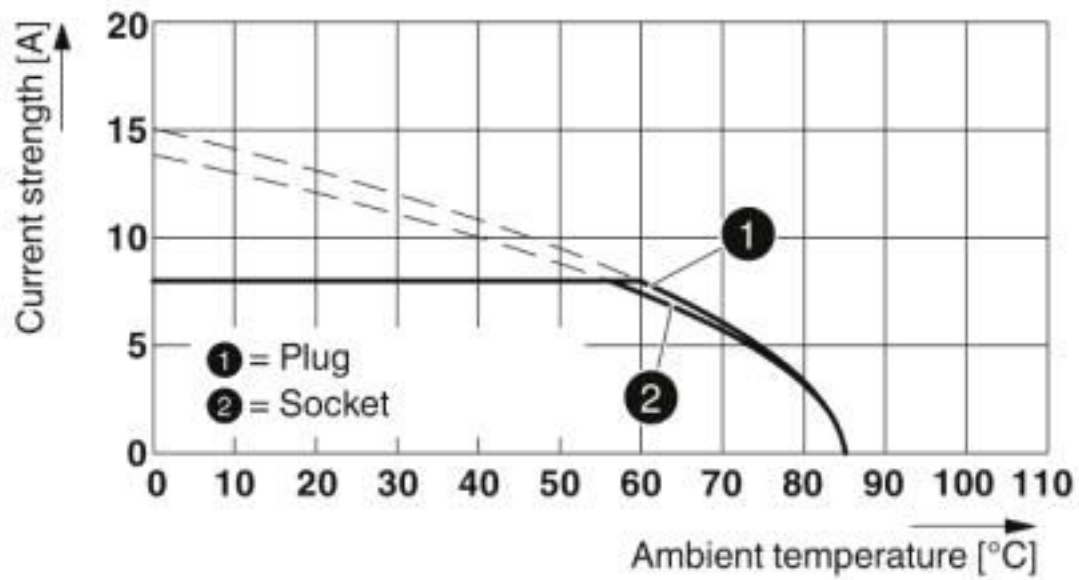
Schematic diagram



Pin assignment of M12 socket, 6-pos., M-coded, socket side view

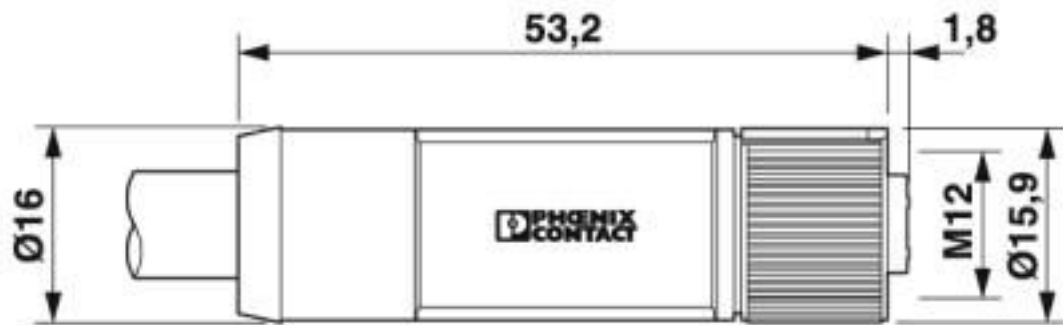
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Diagram



Derating diagram

Dimensional drawing



M12 x 1 socket, straight

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Circuit diagram



Contact assignment of the M12 socket

## Power cable - SAC-6P- 1,5-PVC/M12FSM PE - 1414905

Cable cross section



PVC black [PVC]

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440203 |
| eCl@ss 5.1    | 27061801 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 8.0    | 27440203 |
| eCl@ss 9.0    | 27440203 |

ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002311 |
| ETIM 6.0 | EC002311 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 7.0 | EC002311 |
|----------|----------|

## Approvals

### Approvals

### Approvals

UL Listed / cUL Listed / EAC-RoHS / EAC / cULus Listed

### Ex Approvals

## Approval details

|                    |                                                                                    |                                                                                                                                                       |         |
|--------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| UL Listed          |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E468743 |
|                    |                                                                                    |                                                                                                                                                       |         |
| Nominal voltage UN |                                                                                    | 600 V                                                                                                                                                 |         |
| Nominal current IN |                                                                                    | 10 A                                                                                                                                                  |         |
| mm²/AWG/kcmil      |                                                                                    | 16                                                                                                                                                    |         |

|                    |                                                                                     |                                                                                                                                                       |         |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| cUL Listed         |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E468743 |
|                    |                                                                                     |                                                                                                                                                       |         |
| Nominal voltage UN |                                                                                     | 600 V                                                                                                                                                 |         |
| Nominal current IN |                                                                                     | 10 A                                                                                                                                                  |         |
| mm²/AWG/kcmil      |                                                                                     | 16                                                                                                                                                    |         |

|          |                                                                                     |                          |
|----------|-------------------------------------------------------------------------------------|--------------------------|
| EAC-RoHS |  | RU D-<br>DE.HB35.B.00387 |
|----------|-------------------------------------------------------------------------------------|--------------------------|

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00286 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

|              |                                                                                     |
|--------------|-------------------------------------------------------------------------------------|
| cULus Listed |  |
|--------------|-------------------------------------------------------------------------------------|

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### Accessories

#### Accessories

#### Screwdriver tools

Tool - SAC BIT M12-D16 - 1200305



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, knurl diameter: 16 mm, for 4 mm hexagonal drive

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Screw plug - PROT M12 MS PWR - 1092802



An M12 screw plug for the unoccupied M12 females of the M12 POWER connectors, boxes, and flush-type connectors

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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

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