

## Power cable - SAC-4P-M12MSS/ 1,0-PUR PE - 1408835

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Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, S-coded, on free cable end, cable length: 1 m, for AC current up to 12 A/690 V

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ High-performance: AC connectors for up to 12 A and 690 V AC
- ✓ Protection against incorrect connection using special S-coding
- ✓ Our standard: robust halogen-free PUR cable

### Key Commercial Data

|                                      |               |
|--------------------------------------|---------------|
| Packing unit                         | 1 pc          |
| GTIN                                 |               |
| GTIN                                 | 4046356839815 |
| Weight per Piece (excluding packing) | 140.000 g     |
| Custom tariff number                 | 85444290      |
| Country of origin                    | Poland        |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 1 m |
|-----------------|-----|

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |

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## Technical data

### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 12 A                          |
| Rated voltage                | 690 V AC                      |
| Number of positions          | 4                             |
| Color handle area            | black                         |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | S power                       |
| Standards/regulations        | M12 connector IEC 61076-2-111 |
| Status display               | No                            |
| Protective circuit/component | unwired                       |
| Overvoltage category         | III                           |
| Degree of pollution          | 3                             |
| Insertion/withdrawal cycles  | > 100                         |
| 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

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

### Cable

|                                     |   |
|-------------------------------------|---|
| Cable type                          | PUR halogen-free black                  |
| Cable type (abbreviation)           | PUR                                     |
| Cable abbreviation                  | Li9YV1-11Y                              |
| UL AWM style                        | 20234 / 10492 (80°C/1000 V)             |
| Conductor cross section             | 4x 1.5 mm <sup>2</sup>                  |
| AWG power supply                    | 16                                      |
| Conductor structure, voltage supply | 78x 0.15 mm                             |
| Core diameter including insulation  | 2.45 mm ±0.05 mm                        |
| Thickness, insulation               | ≥ 0.36 mm                               |
| Wire colors                         | Black 1, black 2, black 3, green/yellow |
| Overall twist                       | 4 wires, twisted                        |

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## Technical data

### Cable

|   |   |
|---|---|
| Length of twist, overall twist                  | 93 mm   |
| External sheath, color                          | black-gray RAL 7021   |
| Outer sheath thickness                          | approx. 1.3 mm  |
| External cable diameter D                       | 8.8 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                                    | 114 kg/km   |
| Outer sheath, material                          | PUR   |
| Material conductor insulation                   | PP  |
| Conductor material                              | Bare Cu litz wires  |
| Insulation resistance                           | ≥ 1 GΩ*km (at 20 °C)  |
| Conductor resistance                            | ≤ 13 Ω/km (at 20 °C)  |
| 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                               |
| Halogen-free                                    | in accordance with DIN VDE 0472 part 815                    |
|   | in accordance with DIN EN 50267-2-1                         |
| Resistance to oil                               | According to DIN EN 60811-2-1, 168 h at 100°C               |
|   | According to UL 758, 168 h at 60°C                          |
| Other resistance                                | Hydrolysis and microbe resistant as per VDE 0282 section 10 |
|   | Low adhesion  |
|   | abrasion-resistant  |
|   | Resistant to salt water                                     |
| Ambient temperature (operation)                 | -50 °C ... 80 °C (cable, fixed installation)                |
|   | -30 °C ... 80 °C (cable, flexible installation)             |

### Environmental Product Compliance

|            |  |
|------------|--|
|            | Lead 7439-92-1                           |
| China RoHS | Environmentally Friendly Use Period = 50 |

## Power cable - SAC-4P-M12MSS/ 1,0-PUR PE - 1408835

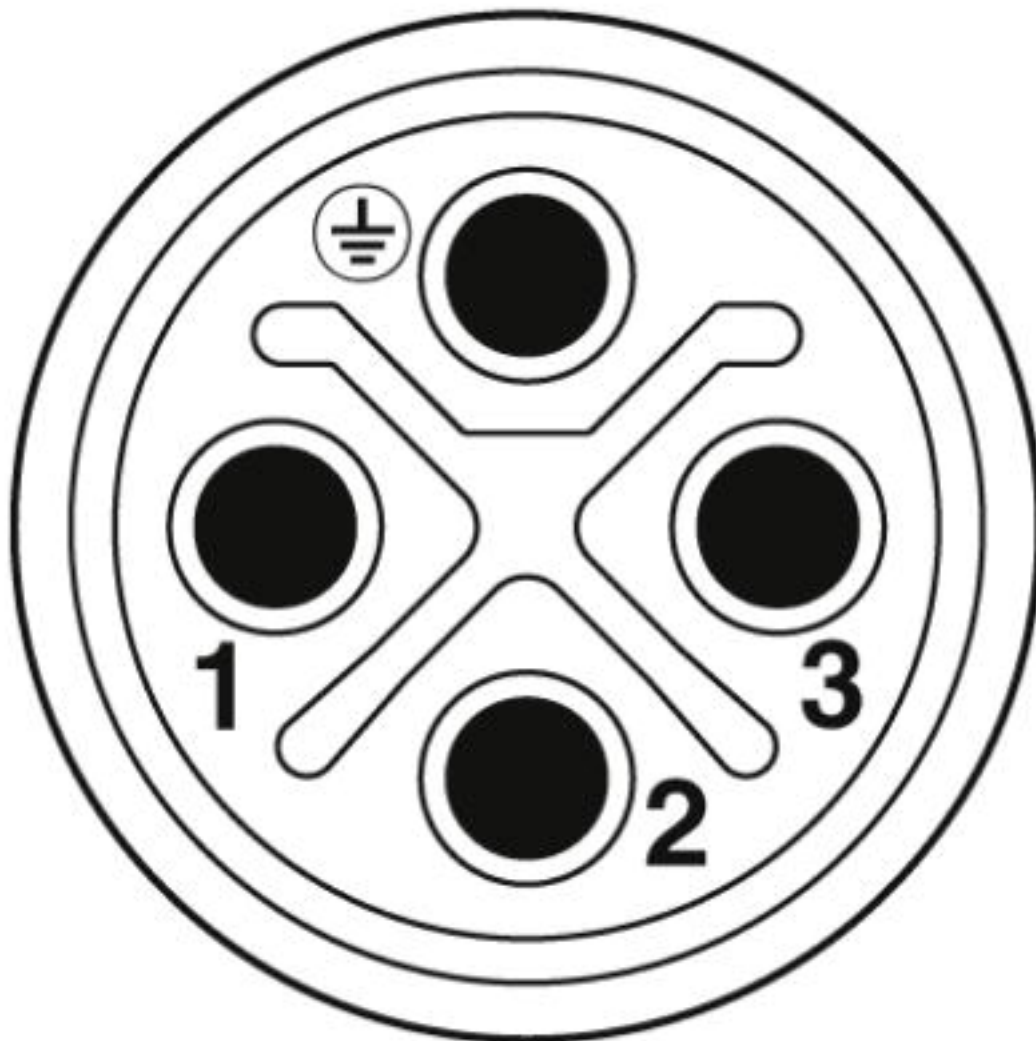
Technical data

Environmental Product Compliance

|  |   |
|--|---|
|  | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |
|--|---|

Drawings

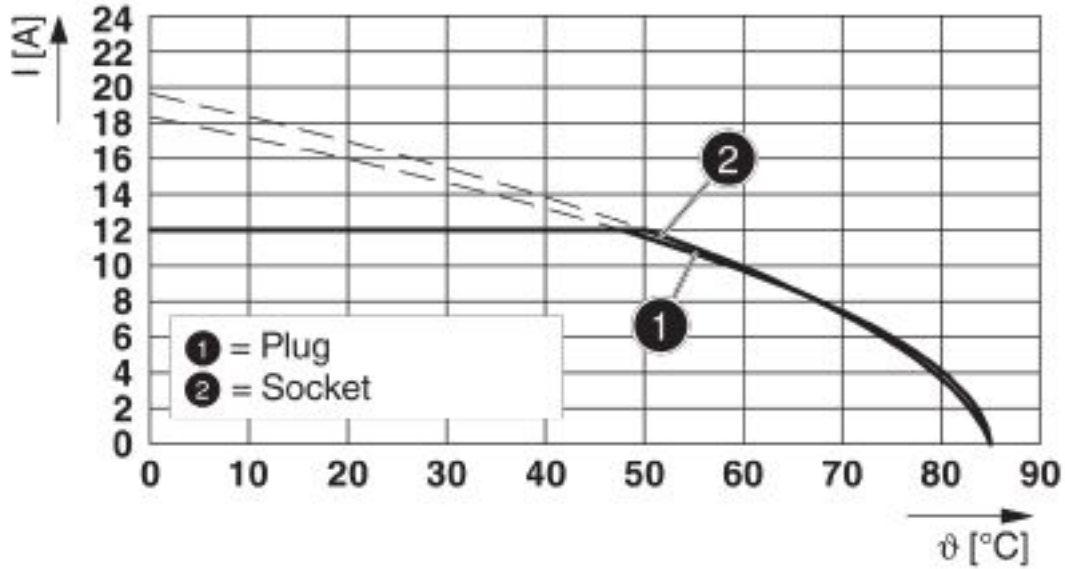
Schematic diagram



M12 plug pin assignment, 4-pos., S-coded, plug side view

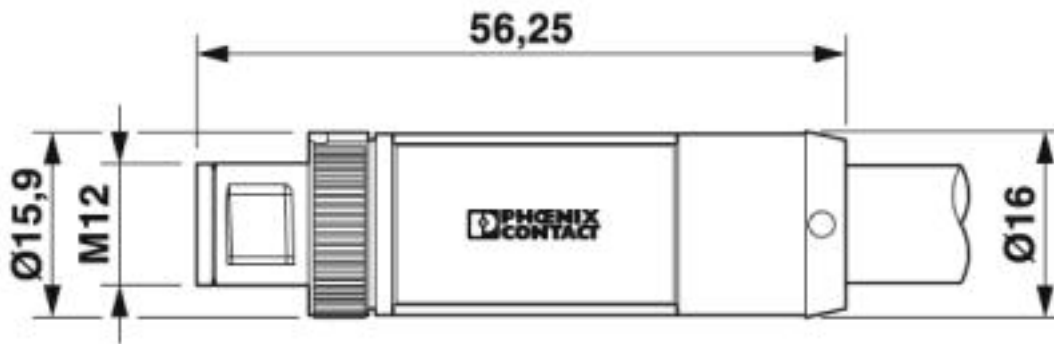
# Power cable - SAC-4P-M12MSS/ 1,0-PUR PE - 1408835

Diagram



Current carrying capacity

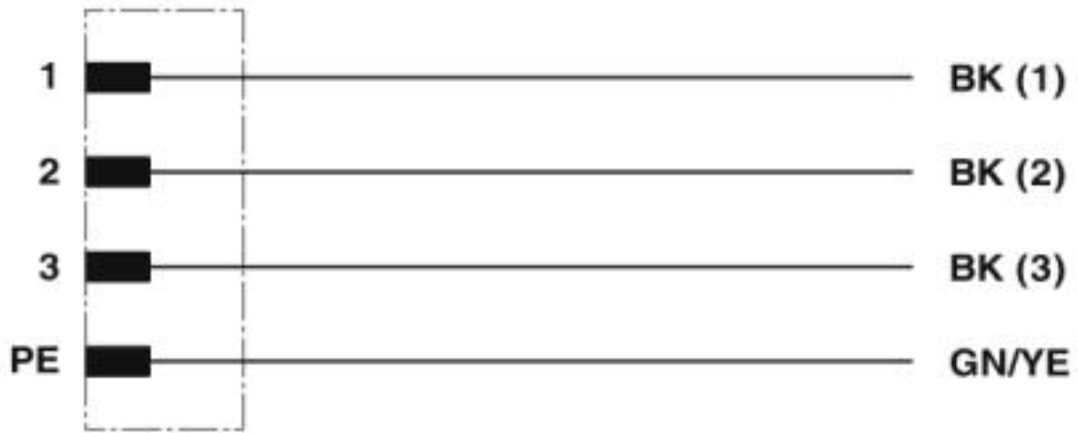
Dimensional drawing



Plug, M12 x 1, straight

## Power cable - SAC-4P-M12MSS/ 1,0-PUR PE - 1408835

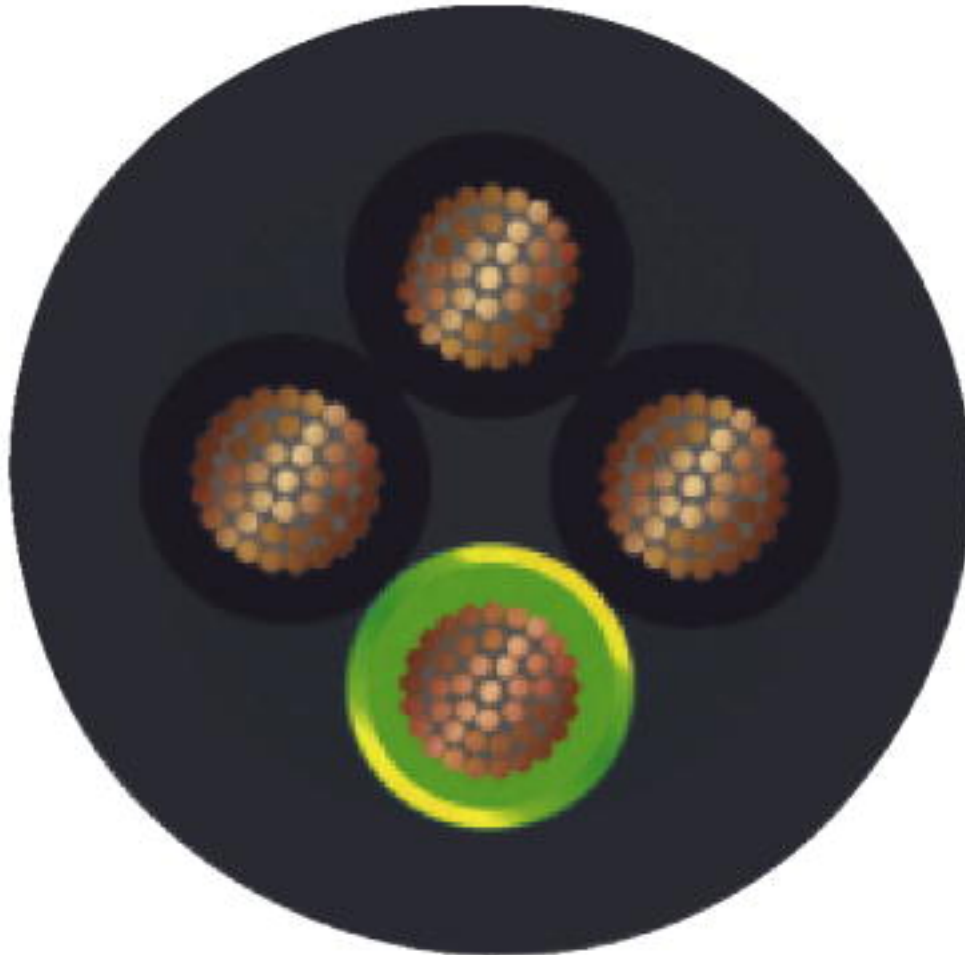
Circuit diagram



Contact assignment of the M12 plug

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Cable cross section



PUR halogen-free black [PUR]

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140800 |
| eCl@ss 4.1 | 27140800 |
| eCl@ss 5.0 | 27143400 |
| eCl@ss 5.1 | 27143400 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

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## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 9.0 | 27060311 |
|------------|----------|

## ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC002061 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

## UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

## Approvals


### Approvals

Approvals

UL Listed / cUL Listed / 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> | FILE E 468743 |
| Nominal voltage UN         | 600 V   |   |               |
| Nominal current IN         | 12 A  |   |               |
| mm <sup>2</sup> /AWG/kcmil | 16  |   |               |

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## Approvals

|                            |  |   |               |
|----------------------------|--|---|---------------|
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| mm <sup>2</sup> /AWG/kcmil |  | 16  |               |

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

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

## Accessories

### Accessories

#### Protective cap

Sealing cap - PROT-M12 FS - 1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

### 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