

# Power cable - SAC-4P- 3,0-PUR/M12FRS PE SH



1424101

<https://www.phoenixcontact.com/pc/products/1424101>

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Power cable, 4-position, PUR halogen-free, orange RAL 2003, shielded (Advanced Shielding Technology), free cable end, on Socket angled M12, coding: S, cable length: 3 m, for AC current up to 12 A/690 V

## Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Protection against incorrect connection using special S-coding
- Shield power reliably – 360° shielding to reduce electromagnetic loads
- Our standard: robust halogen-free PUR cable

## Commercial Data

Item number	1424101
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF1CCP
Catalog Page	Page 289 (C-2-2019)
GTIN	4046356693066
Weight per Piece (including packing)	465.8 g
Weight per Piece (excluding packing)	465.8 g
Customs tariff number	85444290
Country of origin	PL

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## Technical Data

### Product properties

Product type	Power cable
Number of positions	4
Application	Power supply
No. of cable outlets	1
Shielded	yes
Coding	S power

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Material specifications

Color Handle area	black
Flammability rating according to UL 94	V0
Material of grip body	PP
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated

### Electrical properties

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	690 V AC
Nominal current $I_N$	12 A
Protective circuit	unwired

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100
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### Connector

#### Connection 1

Head design	free cable end
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#### Connection 2

Head design	Socket
Head cable outlet	angled
Head thread type	M12
Coding	S

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## Cable / line

Cable length	3 m
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PUR halogen-free orange shielded [PUR]

Dimensional drawing	
UL AWM Style	20234 / 10492 (80°C/1000 V)
Number of positions	4
Shielded	yes
Cable type	PUR halogen-free orange shielded [PUR]
Conductor cross section	4x 1.5 mm <sup>2</sup>
Wire diameter incl. insulation	≤ 2.5 mm
External cable diameter	9.7 mm ±0.3 mm
Outer sheath, material	PUR
External sheath, color	orange RAL 2003
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	Black 1, black 2, black 3, green/yellow
Thickness, insulation	0.4 mm
Thickness, outer sheath	1.2 mm
Overall twist	4 wires optimally twisted
Max. conductor resistance	≤ 13.3 Ω/km (at 20 °C)
Insulation resistance	≥ 10 MΩ*km (at 20 °C)
Nominal voltage, cable	1000 V AC
Test voltage	4260 V AC (5 min.)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	7.5 x D
Max. bending cycles	4000000
Torsion force	± 25 °/m
Halogen-free	according to VDE 0282-13 Appendix C
Flame resistance	in accordance with EN 60332-1-2 in acc. to UL 1581 VW1 According to CSA C 22.2 No. 210-05 FT1
Resistance to oil	in accordance with DIN EN 60811-2-1 According to DIN EN 50363-10-2
Other resistance	UV resistant Low adhesion

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Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 90 °C (Cable, flexible installation)

## Ambient conditions

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

## Standards and regulations

Standards/specifications	IEC 61076-2-111
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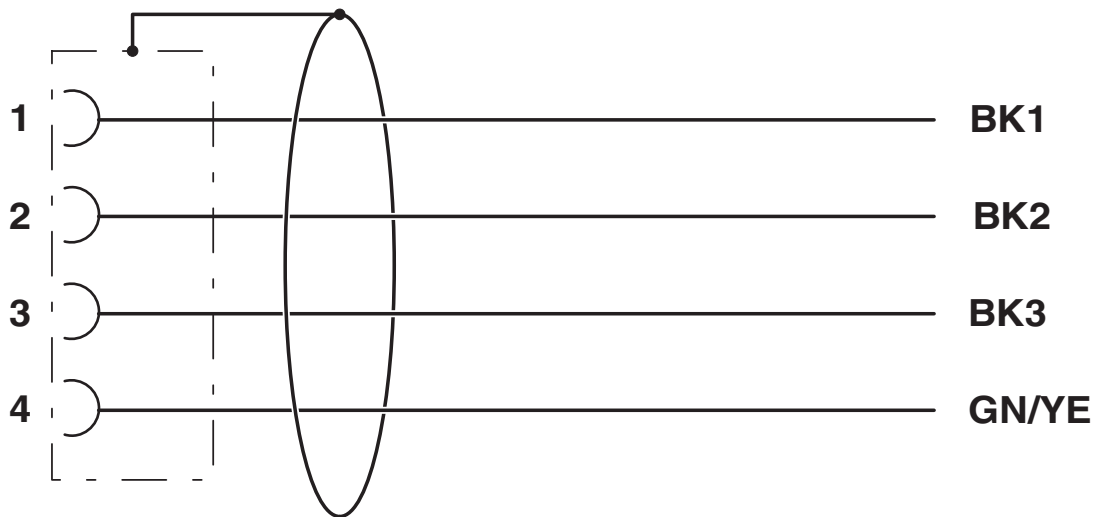


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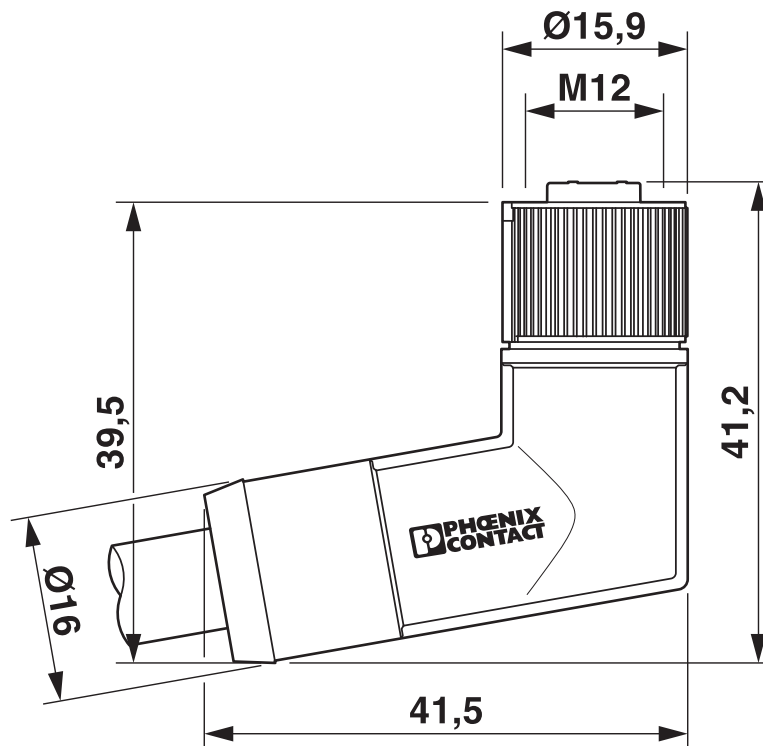
<https://www.phoenixcontact.com/pc/products/1424101>

## Drawings

Circuit diagram



Dimensional drawing

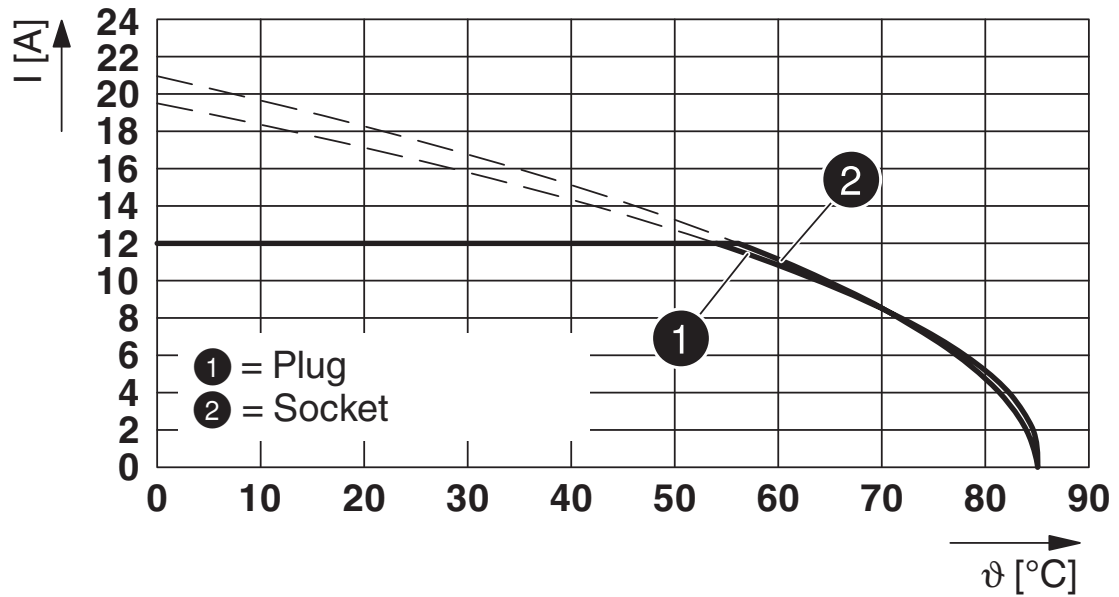


M12 x 1 socket, angled

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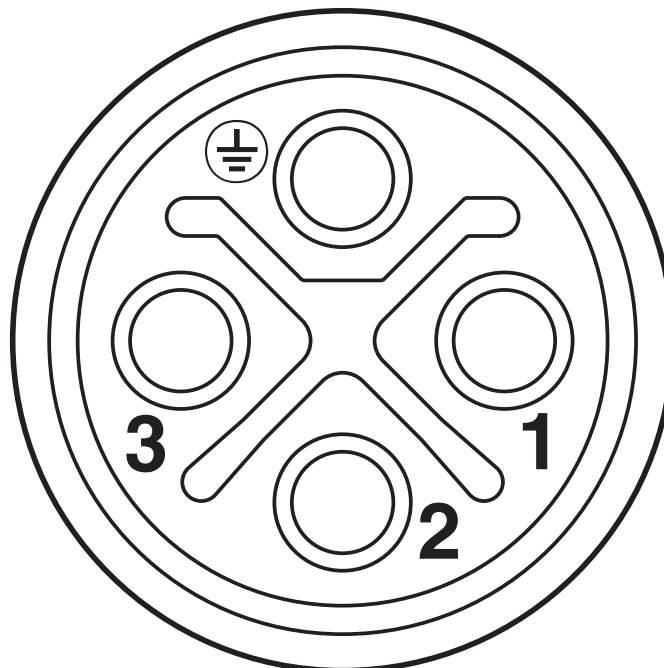
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Diagram



Base curve

Schematic diagram



Pin assignment of M12 socket, 4-pos., S-coded, socket side view

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## Approvals



### EAC

Approval ID: RU C-DE.BL08.B.00286



### UL Listed

Approval ID: FILE E 468743

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	12 A	-	- 16



### cUL Listed

Approval ID: FILE E 468743

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	12 A	- 16	-



### EAC

Approval ID: RU D-DE.HB35.B.00387

### cULus Listed

# Power cable - SAC-4P- 3,0-PUR/M12FRS PE SH



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## Classifications

### ECLASS

ECLASS-9.0	27060311
ECLASS-10.0.1	27060311
ECLASS-11.0	27060311

### ETIM

ETIM 8.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Accessories

### Tool

Tool - SAC BIT M12-D16 - 1200305

<https://www.phoenixcontact.com/pc/products/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

Screw plug - PROT M12 MS PWR - 1092802

<https://www.phoenixcontact.com/pc/products/1092802>

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



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