

# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

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.



Power cable, 5-position, PUR halogen-free, gray RAL 7001, shielded (Advanced Shielding Technology), Plug angled M12, coding: L, on free cable end, cable length: 5 m, for direct current up to 16 A/63 V

## Your advantages

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

## Commercial Data

Item number	1414859
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF1CDP
GTIN	4055626034911
Weight per Piece (including packing)	1,062 g
Weight per Piece (excluding packing)	1,062 g
Customs tariff number	85444290
Country of origin	PL

1414859

<https://www.phoenixcontact.com/pc/products/1414859>

## Technical Data

### Product properties

Product type	Power cable
Number of positions	5
Application	Power supply
No. of cable outlets	1
Shielded	yes
Coding	L - Power

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Material specifications

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 $U_N$	63 V DC
Nominal current $I_N$	16 A
Protective circuit	unwired

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
-----------------------------	------------

### Connector

#### Connection 1

Head design	Plug
Head cable outlet	angled
Head thread type	M12
Coding	L

#### Connection 2

Head design	free cable end
-------------	----------------


### Cable / line

# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

Cable length	5 m
PUR halogen-free gray [280]	
Dimensional drawing	
Cable weight	202 kg/km
UL AWM Style	20233 / 10493 (80°C/300 V)
Number of positions	5
Shielded	yes
Cable type	PUR halogen-free gray [280]
Conductor cross section	5x 2.5 mm <sup>2</sup>
Wire diameter incl. insulation	2.85 mm ±0.1 mm
External cable diameter	10.4 mm ±0.3 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, white, blue, black, pink
Thickness, insulation	≥ 0.31 mm
Thickness, outer sheath	approx. 0.76 mm
Max. conductor resistance	≤ 8 Ω/km (at 20 °C)
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	5000000
Halogen-free	in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1
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 100 °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)

# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

	-30 °C ... 80 °C (Cable, flexible installation)
--	---

## Ambient conditions

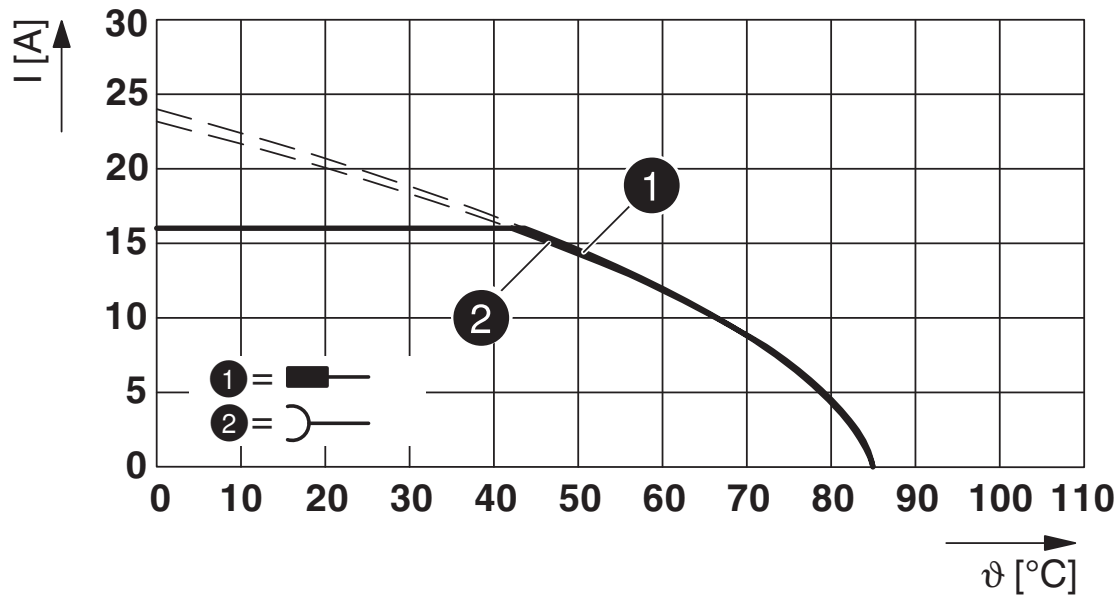
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)

## Standards and regulations

Standards/specifications	IEC 61076-2-111
--------------------------	-----------------

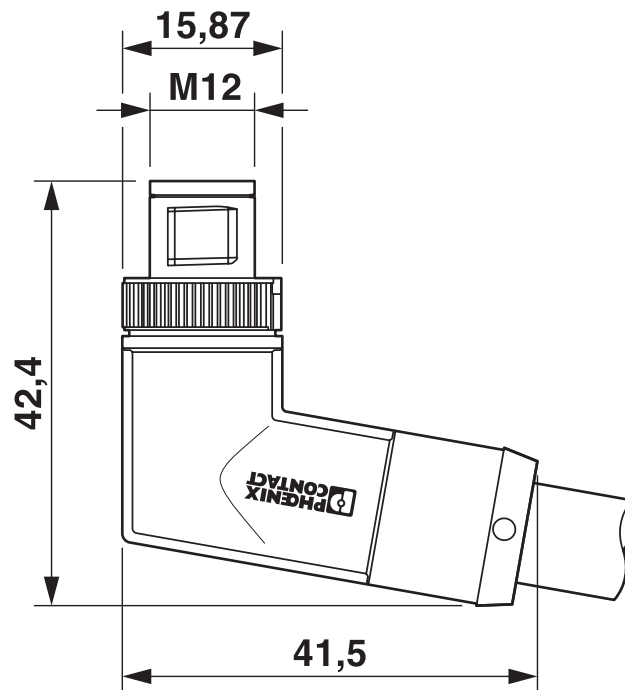
Drawings

Diagram



Base curve

Dimensional drawing

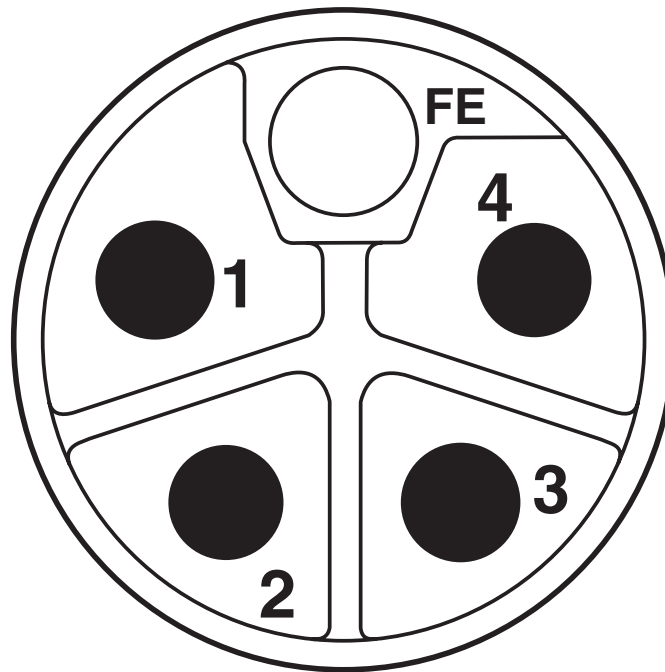


M12 x 1 male plug, angled

1414859

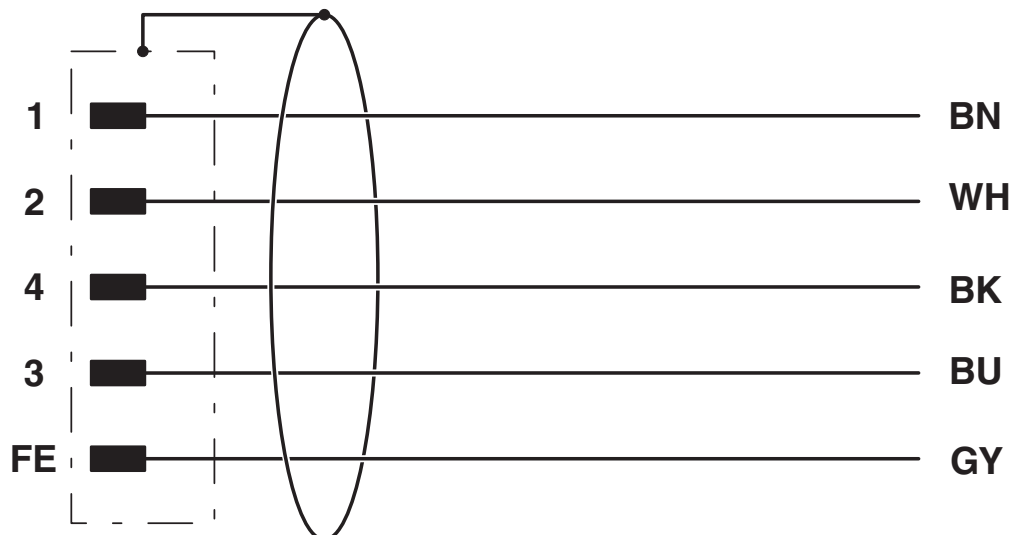
<https://www.phoenixcontact.com/pc/products/1414859>

Schematic diagram



Pin assignment of M12 connector, 5-pos., L-coded, pin side view

Circuit diagram



# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

## Approvals



**EAC**

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



**EAC**

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

# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC001855
----------	----------

### UNSPSC

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

# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

## Environmental Product Compliance

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

# Power cable - SAC-5P-M12MRL/ 5,0-280 FE SH



1414859

<https://www.phoenixcontact.com/pc/products/1414859>

## 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



---

### Sealing cap

Sealing cap - PROT-M12 FS - 1560251

<https://www.phoenixcontact.com/pc/products/1560251>

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



---

Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

[info@phoenixcontact.com](mailto:info@phoenixcontact.com)