

# SAC-4P-M12MRT/ 3,0-PUR/FRT SH - Power cable



1415203

<https://www.phoenixcontact.com/us/products/1415203>

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Power cable, 4-position, PUR halogen-free, black RAL 9005, shielded (Advanced Shielding Technology), Plug angled M12, coding: T, on Socket angled M12, coding: T, cable length: 3 m, For direct current up to 12 A/63 V

## Your advantages

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

## Commercial data

Item number	1415203
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF05
Product key	AF1CCQ
GTIN	4055626041261
Weight per piece (including packing)	481.2 g
Weight per piece (excluding packing)	481.2 g
Customs tariff number	85444290
Country of origin	US

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## Technical data

### Product properties

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

### 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

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	63 V DC
Nominal current $I_N$	12 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	> 100
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### Connector

#### Connection 1

Type	Plug angled M12
Coding type	T (Power)

#### Connection 2

Type	Socket angled M12
Coding type	T (Power)

### Cable/line

Cable length	3 m
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PUR halogen-free black [PUR]

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Dimensional drawing	
Cable weight	99 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure, voltage supply	44x 0.20 mm
AWG power supply	16
Conductor cross-section	4x 1.5 mm <sup>2</sup>
Wire diameter incl. insulation	2.2 mm ±0.05 mm
External cable diameter	7.50 mm ±0.3 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	0.80 mm (Outer cable sheath)
Overall twist	4 wires optimally twisted
Max. conductor resistance	≤ 14.1 Ω/km (at 20 °C)
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Nominal voltage, cable	300 V AC
Test voltage	3000 V AC
Smallest bending radius, fixed installation	38 mm
Smallest bending radius, movable installation	75 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 75 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: 500000, Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815 according to IEC 60754-1
Flame resistance	in accordance with UL 758/1581 FT2 DIN EN 60332-2-2 (20 s)
Resistance to oil	according to DIN EN 60811-404, 168 h at 100 °C
Special properties	Flexible cable conduit capable
Ambient temperature (operation)	-50 °C ... 85 °C (cable, fixed installation) -30 °C ... 85 °C (Cable, flexible installation)

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## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-111

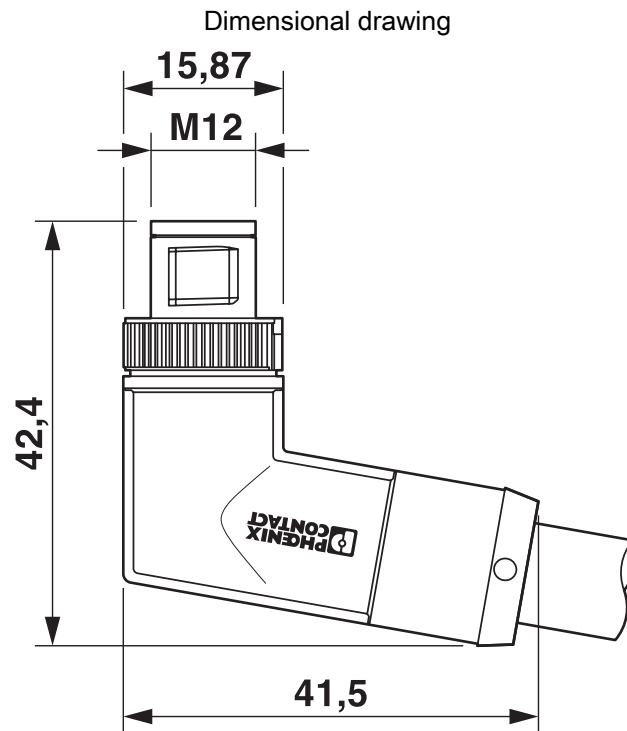
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## Drawings



M12 x 1 male plug, angled



M12 x 1 socket, angled

Schematic diagram



Pin assignment for M12 plug, 4-pos., T-coded, view of plug side

Schematic diagram

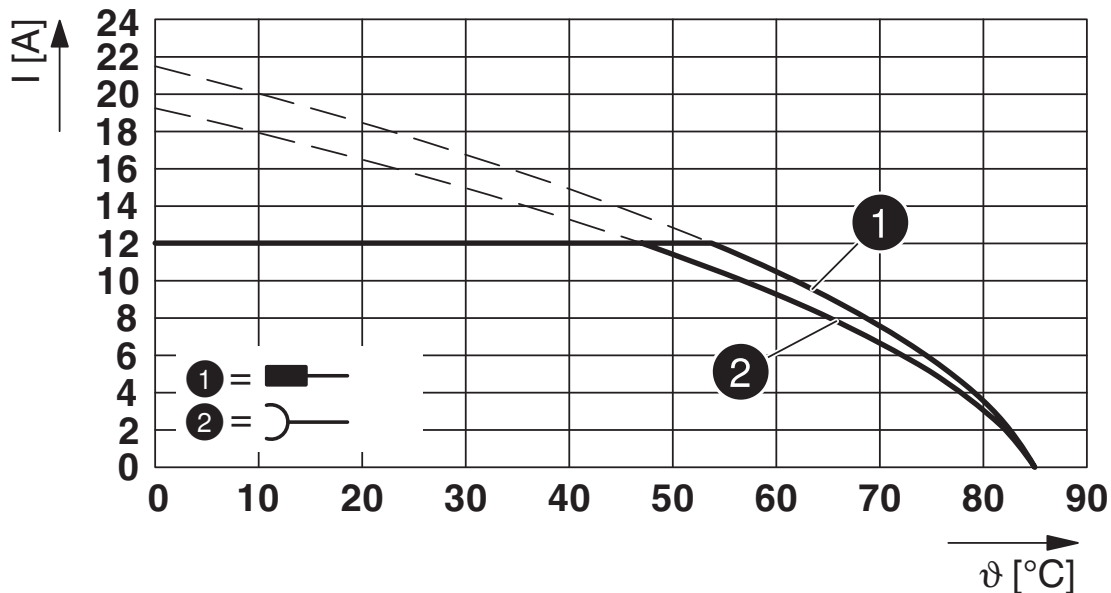


Pin assignment of M12 socket, 4-pos., T-coded, socket side view

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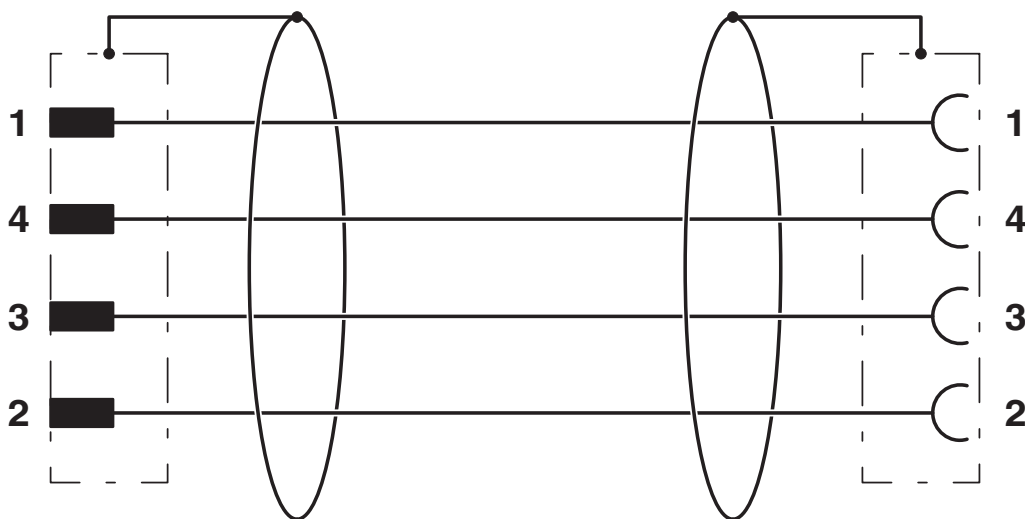
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Diagram



Base curve

Circuit diagram



Contact assignment of M12 connector/socket

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1415203>

 <b>UL Listed</b> Approval ID: E468743				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	63 V	12 A	- 16	- 16

 <b>cUL Listed</b> Approval ID: E468743				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	63 V	12 A	- 16	-

 <b>EAC-RoHS</b> Approval ID: RU D-DE.HB35.B.00387				
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## Classifications

### ECLASS

ECLASS-13.0	27060327
ECLASS-15.0	27060327

### ETIM

ETIM 10.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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### EF3.1 Climate Change

CO2e kg	6.856 kg CO2e
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