

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

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, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: T, on Socket straight M12, coding: T, cable length: 3.5 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
- Our standard: robust halogen-free PUR cable

## Commercial data

Item number	1012044
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF05
Product key	BF1CCQ
GTIN	4055626486192
Weight per piece (including packing)	409.8 g
Weight per piece (excluding packing)	409.8 g
Customs tariff number	85444290
Country of origin	US

1012044

<https://www.phoenixcontact.com/us/products/1012044>

## Technical data

### Product properties

Product type	Power cable
Application	Power supply
Number of positions	4
No. of cable outlets	1
Shielded	no
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
-----------------------------	-------

### Connector

#### Connection 1

Type	Plug straight M12
Coding type	T (Power)

#### Connection 2

Type	Socket straight M12
Coding type	T (Power)

### Cable/line

Cable length	3.5 m
--------------	-------

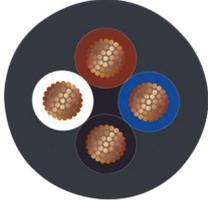
PUR halogen-free black [PUR]

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

Dimensional drawing	
Cable weight	109 kg/km
UL AWM Style	20233 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor cross section	4x 1.5 mm <sup>2</sup>
Wire diameter incl. insulation	2.35 mm ±0.05 mm
External cable diameter	8.40 mm ±0.25 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.25 mm
Thickness, outer sheath	approx. 1.30 mm
Overall twist	4 wires, twisted
Length of twist, overall twist	90 mm
Max. conductor resistance	≤ 13 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
Smallest bending radius, fixed installation	42 mm
Smallest bending radius, movable installation	84 mm
Max. bending cycles	4000000
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>
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 60811-2-1, 168 h at 100°C

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

	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 and real-life conditions

### Ambient conditions

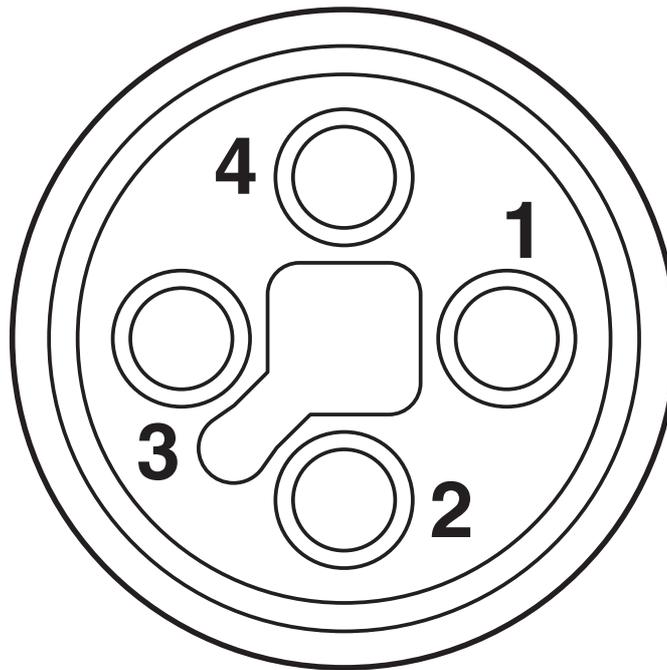
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)

## Standards and regulations

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

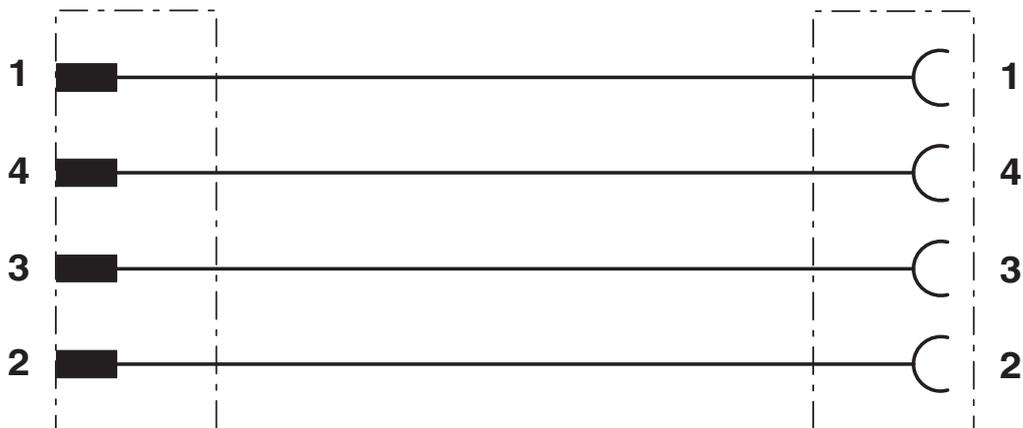
Drawings

Schematic diagram



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

Circuit diagram



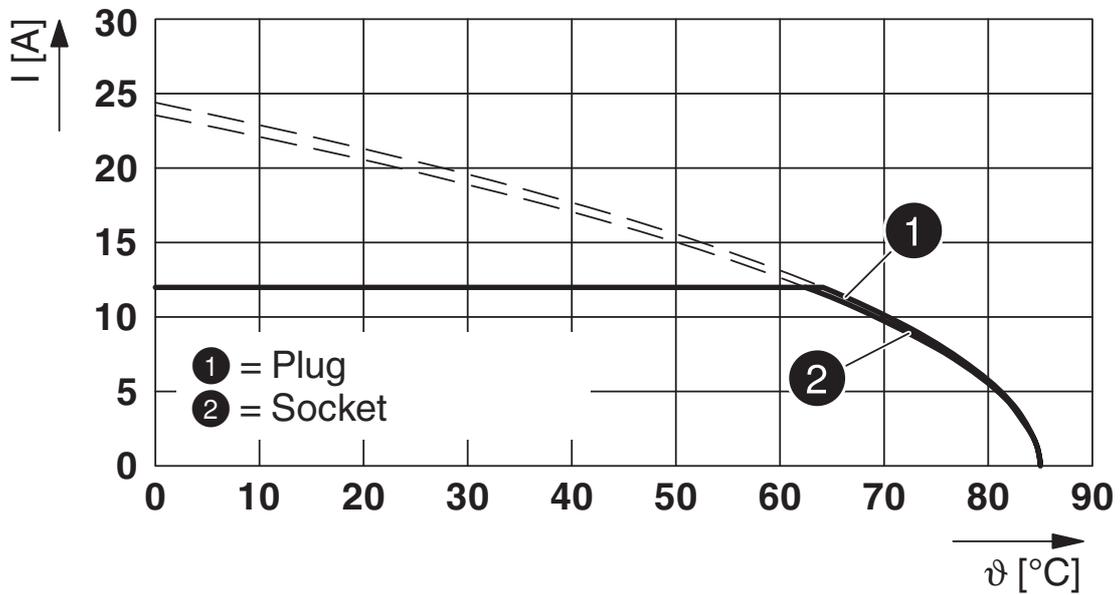
# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

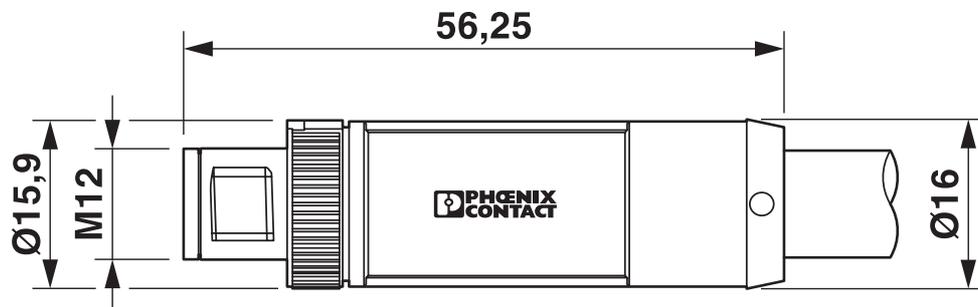
<https://www.phoenixcontact.com/us/products/1012044>

Diagram



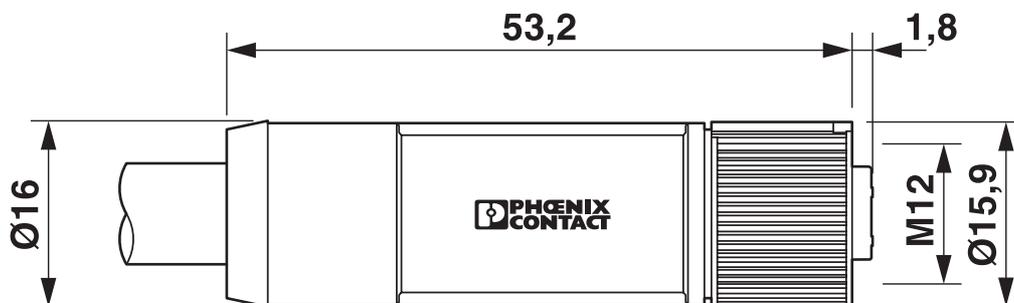
Base curve

Dimensional drawing



Plug, M12 x 1, straight

Dimensional drawing



M12 x 1 socket, straight

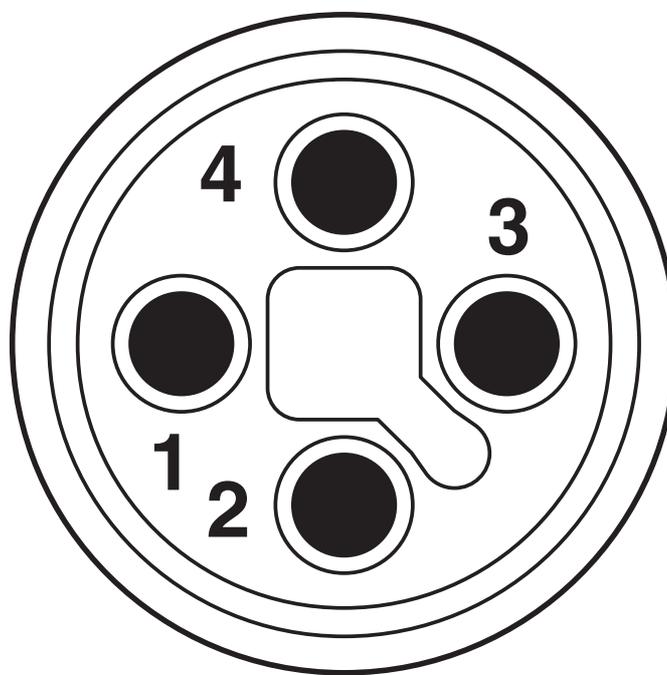
# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable

1012044

<https://www.phoenixcontact.com/us/products/1012044>



Schematic diagram



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

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1012044>

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

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

<b>cULus Listed</b>				
---------------------	--	--	--	--

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## Classifications

### ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060327

### ETIM

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

### UNSPSC

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

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### 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%
-------------------------------------	----------------------------

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## Accessories

### PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



### UCT-WMT (23X4) - Conductor marker

0801453

<https://www.phoenixcontact.com/us/products/0801453>

Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 30



# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## UC-WMT (23X4) - Conductor marker

0819411

<https://www.phoenixcontact.com/us/products/0819411>



Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 24

---

## US-WMT (23X4) - Cable marker

0828769

<https://www.phoenixcontact.com/us/products/0828769>



Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 56

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## WMTW (23X4)R - Cable marker

0831004

<https://www.phoenixcontact.com/us/products/0831004>



Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 3000

---

## PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

<https://www.phoenixcontact.com/us/products/1430873>



M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## PROT-M12 FS - Sealing cap

1560251

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



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

---

## SAC BIT M12-D16 - Tool

1200305

<https://www.phoenixcontact.com/us/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

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/us/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

---

## TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/us/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

# SAC-4P-M12MST/3,5-PUR/M12FST - Power cable



1012044

<https://www.phoenixcontact.com/us/products/1012044>

## TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/us/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

---

## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

---

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)