SAC-4P-M12MRT/ 1,0-PUR/M12FRT - Power cable

1415196

https://www.phoenixcontact.com/us/products/1415196

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Power cable, 4-position halogen-free, Plug angled M12, coding: T, on Socket angled M12, coding: T, cable length: 1 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	1415196
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	BF05
Product Key	BF1CCQ
Catalog Page	Page 185 (C-6-2019)
GTIN	4055626041216
Weight per Piece (including packing)	150.1 g
Weight per Piece (excluding packing)	147.1 g
Customs tariff number	85444290
Country of origin	US

Technical Data

Product properties

Product type	Power cable
Number of positions	4
Application	Power supply
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

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	63 V DC
Nominal current I_N	12 A
Protective circuit	unwired

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100

Connector

Connection 1

Type	Plug angled M12
Coding type	T (Power)

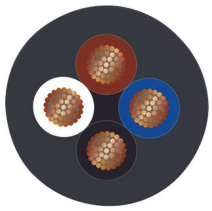
Connection 2

Type	Socket angled M12
Coding type	T (Power)

Cable/line

Cable length	1 m

PUR halogen-free black [PUR]

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 mm²
Wire diameter incl. insulation	2.35 mm ±0.05 mm
External cable diameter	8.4 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. 1.3 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
Max. bending cycles	4000000
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
	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

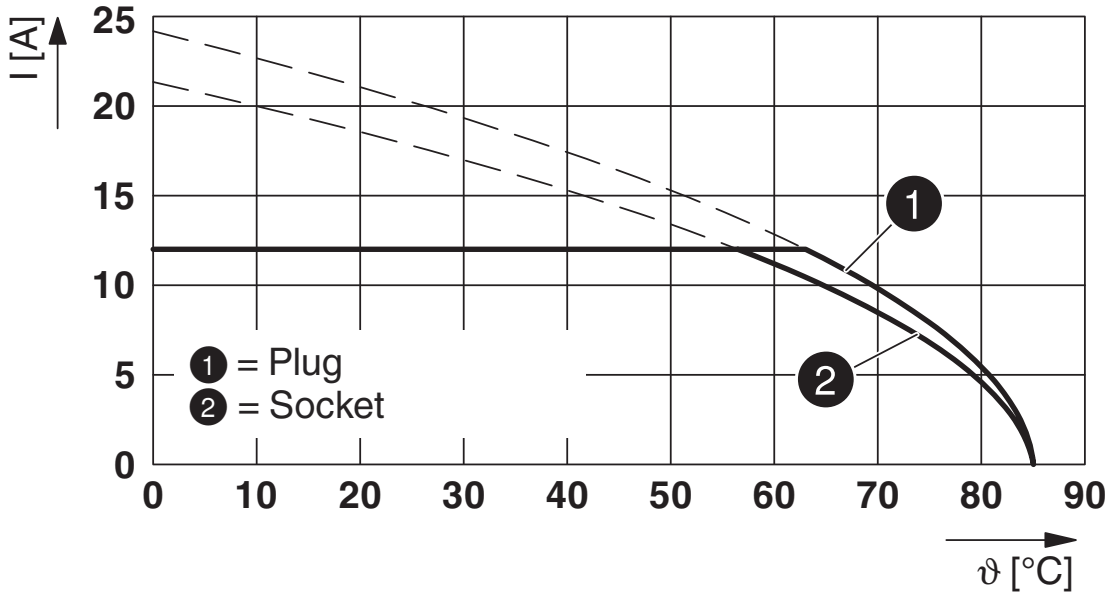
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)

Standards and regulations

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

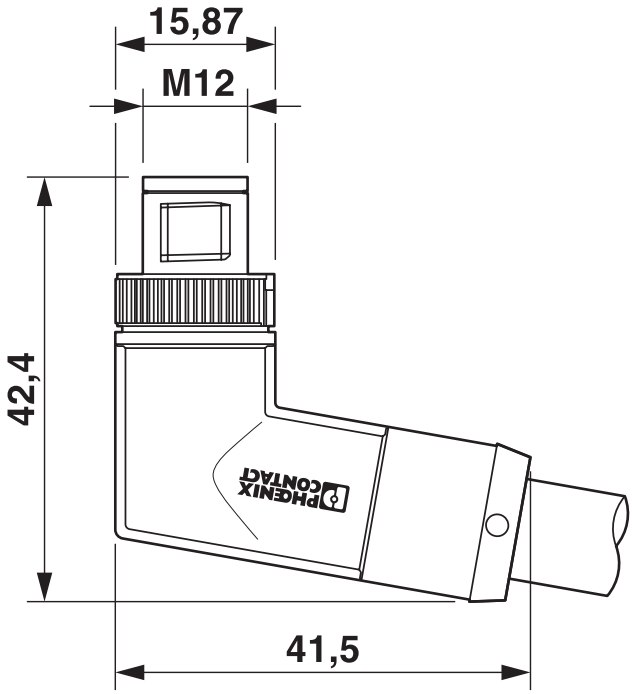
Drawings

Diagram



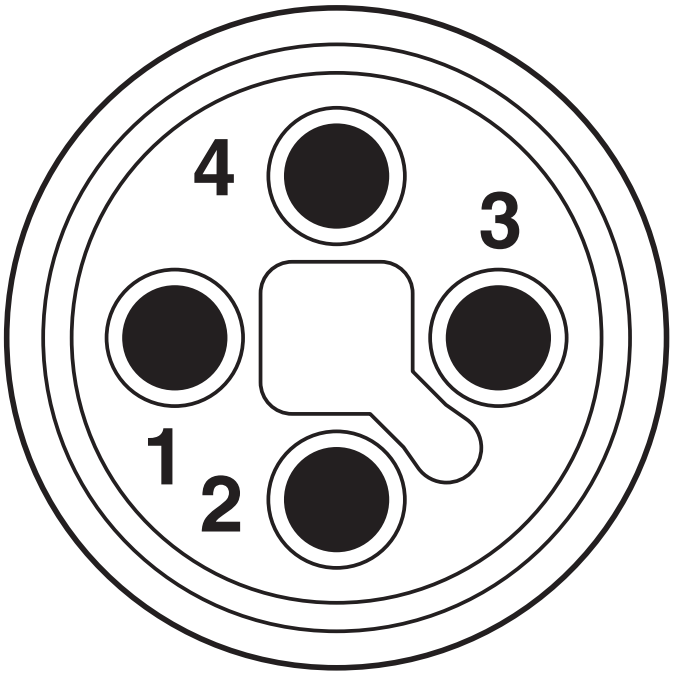
Base curve

Dimensional drawing



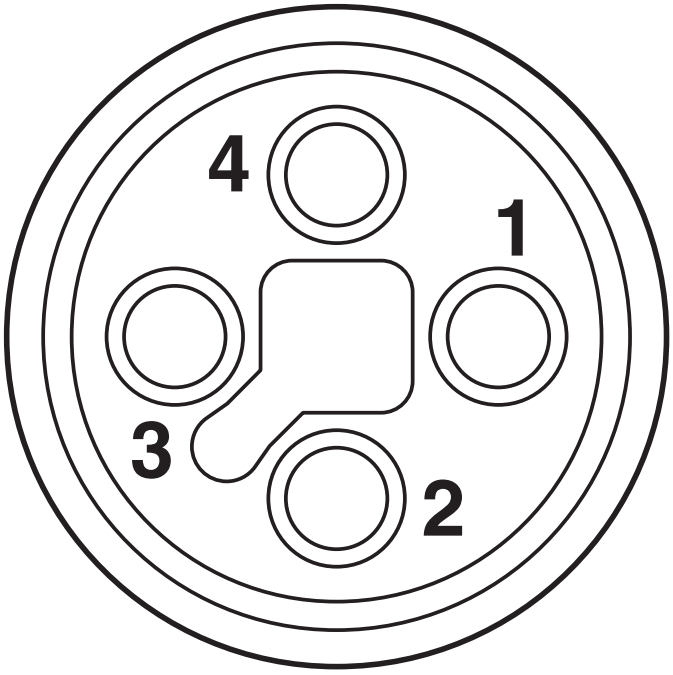
M12 x 1 male plug, angled

Schematic diagram



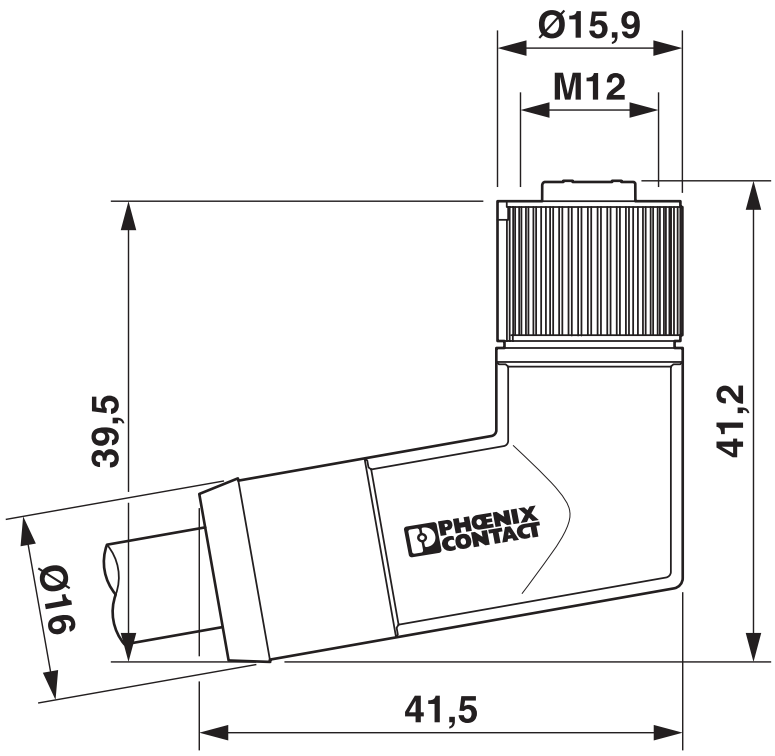
Pin assignment for M12 plug, 4-pos., T-coded, view of plug side

Schematic diagram



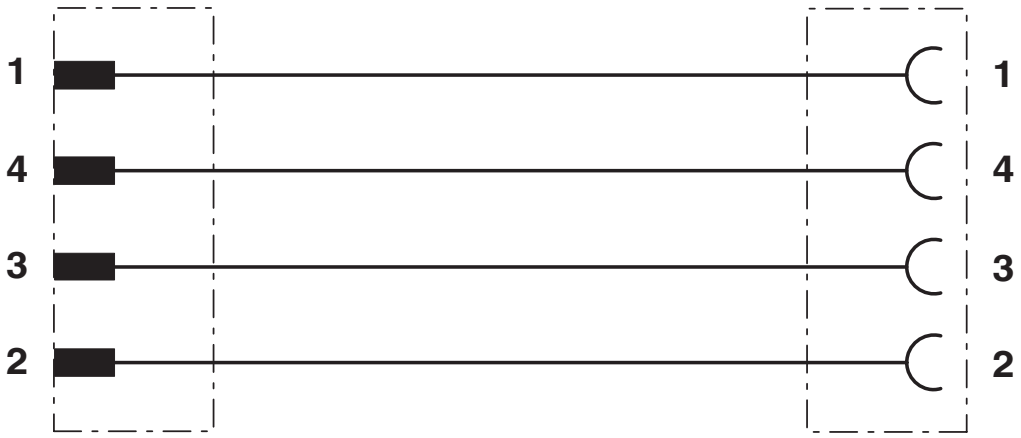
Pin assignment of M12 socket, 4-pos., T-coded, socket side view

Dimensional drawing



M12 x 1 socket, angled

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1415196

UL Listed
Approval ID: E468743

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	63 V	12 A	-	- 16

cUL Listed
Approval ID: E468743

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	63 V	12 A	- 16	-

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

cULus Listed

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

Environmental Product Compliance

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

Accessories

PROT M12 MS PWR - Screw plug

1092802

https://www.phoenixcontact.com/us/products/1092802



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

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

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