

## Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

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Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, coding: T, on Socket angled M12, coding: T, cable length: 10 m, For direct current up to 12 A/63 V

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ High-performance: DC connectors for up to 12 A and 63 V DC
- ✓ Protection against incorrect connection using special T-coding
- ✓ Our standard: robust halogen-free PUR cable

### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 041247
GTIN	4055626041247

### Technical data

#### Dimensions

Length of cable	10 m
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#### Ambient conditions

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

#### General

Rated current at 40°C	12 A
Rated voltage	63 V DC
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	T power

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## Technical data

### General

Standards/regulations	M12 connector IEC 61076-2-111
Status display	No
Protective circuit/component	unwired
Overvoltage category	III
Degree of pollution	3
Insertion/withdrawal cycles	> 100
Torque	0.4 Nm (M12 connector)

### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Material of grip body	PP
Material, knurls	Zinc die-cast, nickel-plated

### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-111
Flammability rating according to UL 94	V0

### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9YV1-11Y
UL AWM style	20233 / 10493 (80°C/300 V)
Conductor cross section	4x 1.5 mm <sup>2</sup>
AWG power supply	16
Conductor structure, voltage supply	78x 0.15 mm
Core diameter including insulation	2.35 mm ±0.05 mm
Thickness, insulation	≥ 0.25 mm
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Length of twist, overall twist	90 mm
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 1.3 mm
External cable diameter D	8.4 mm ±0.25 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	4000000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s

## Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

### Technical data

#### Cable

Acceleration	10 m/s <sup>2</sup>
Cable weight	109 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Conductor resistance	≤ 13 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Flame resistance	According to UL 758/1581 (Cable Flame)
	according to UL 758/1581 FT1
	According to DIN EN 60332-1-2
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
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)

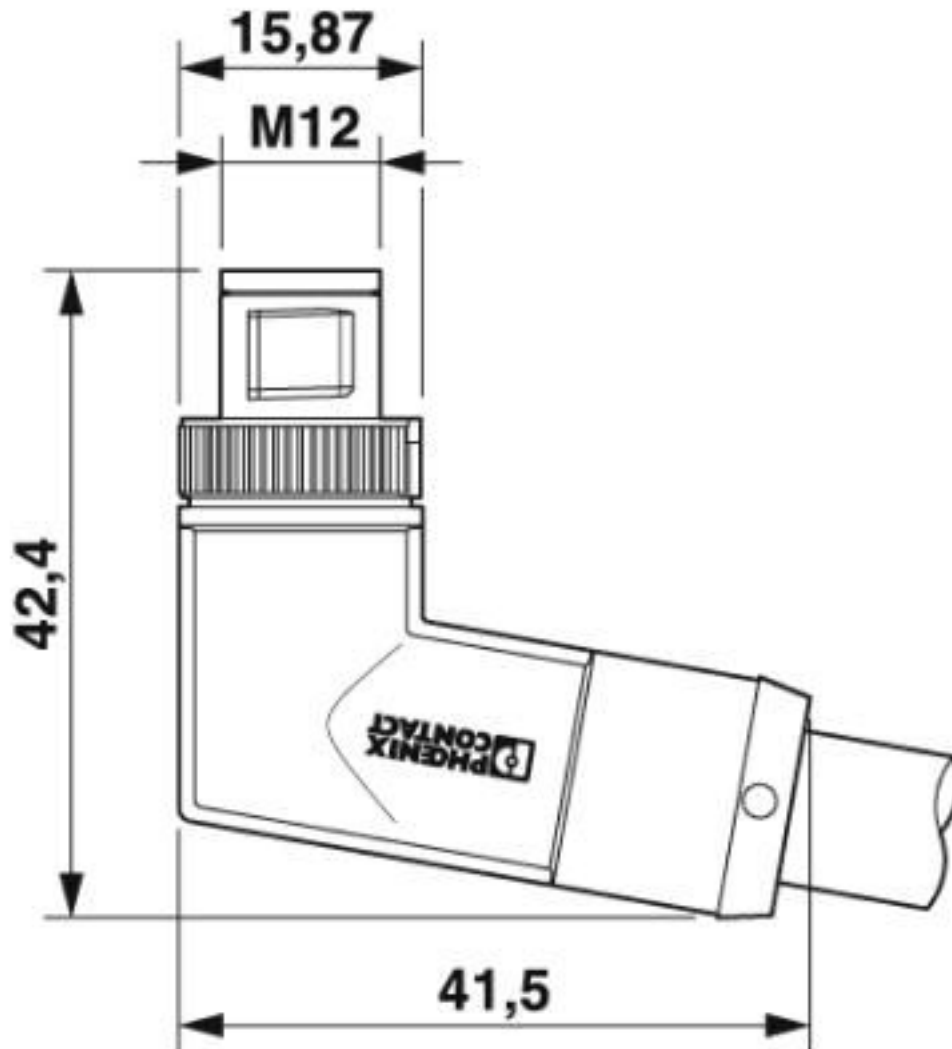
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

#### Drawings

# Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

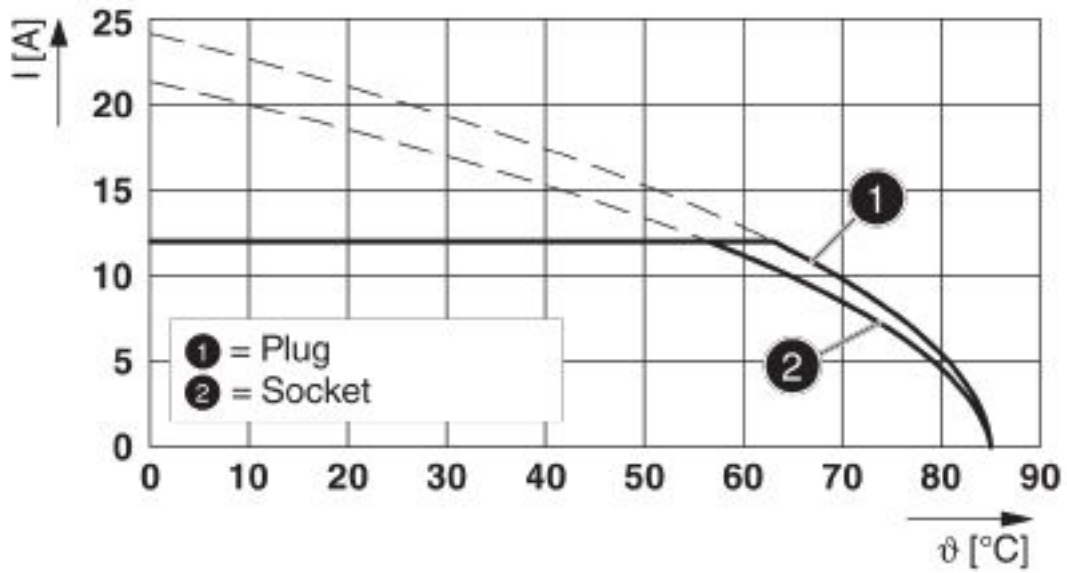
Dimensional drawing



M12 x 1 male plug, angled

# Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

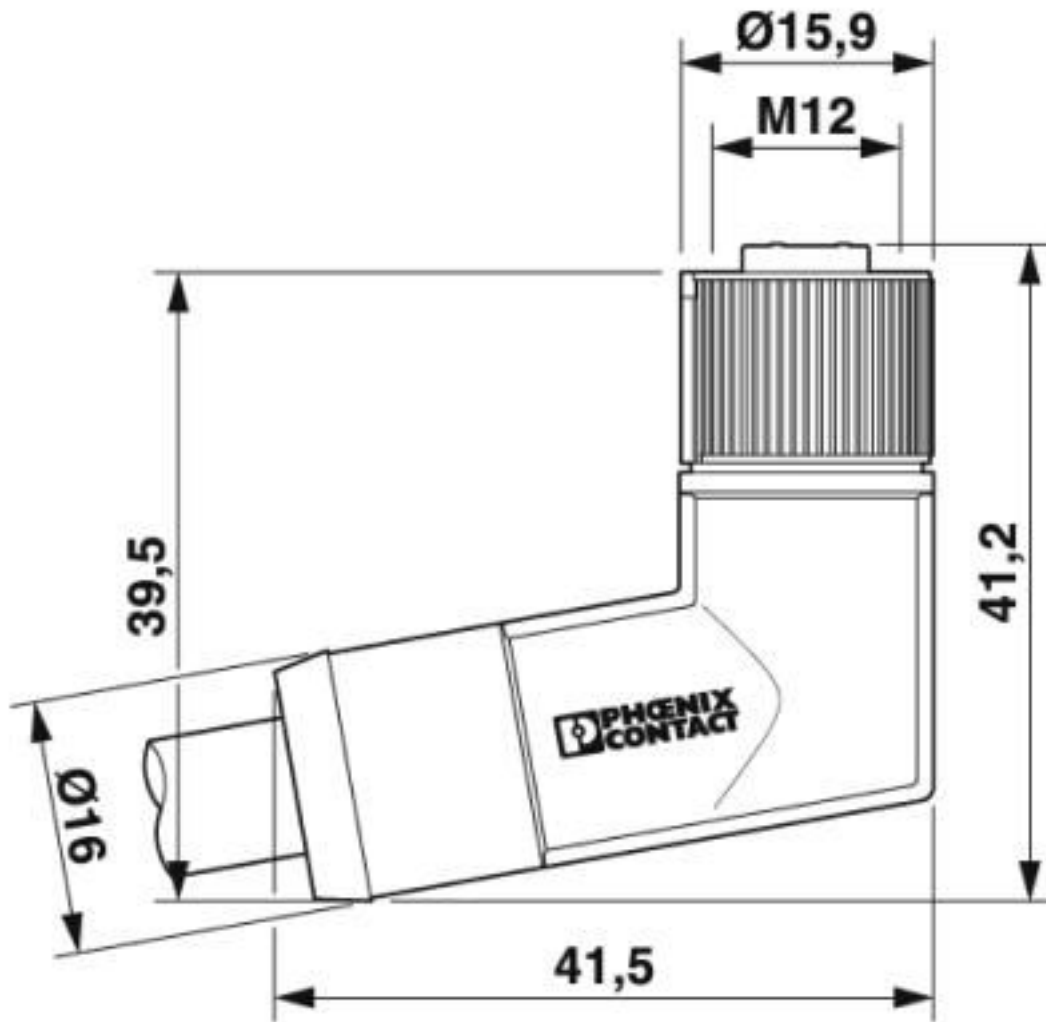
Diagram



Current carrying capacity

# Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

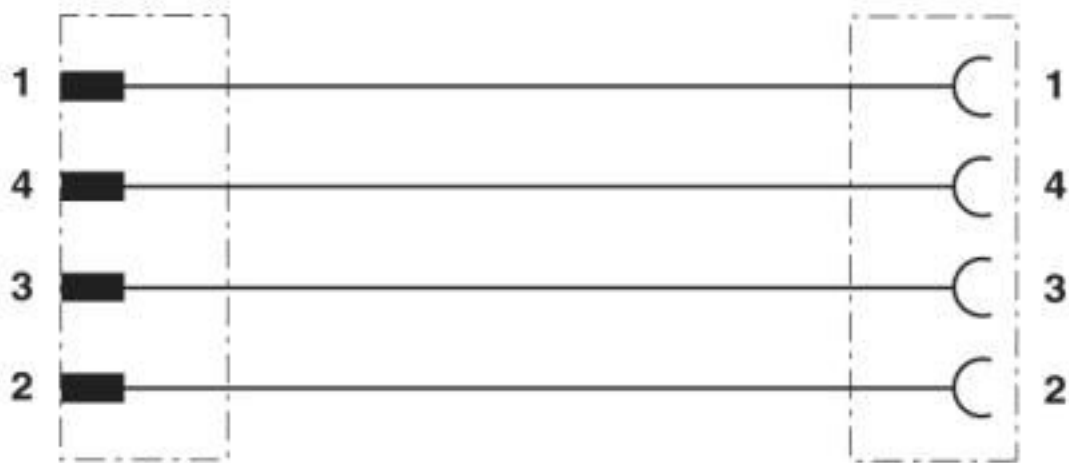
Dimensional drawing



M12 x 1 socket, angled

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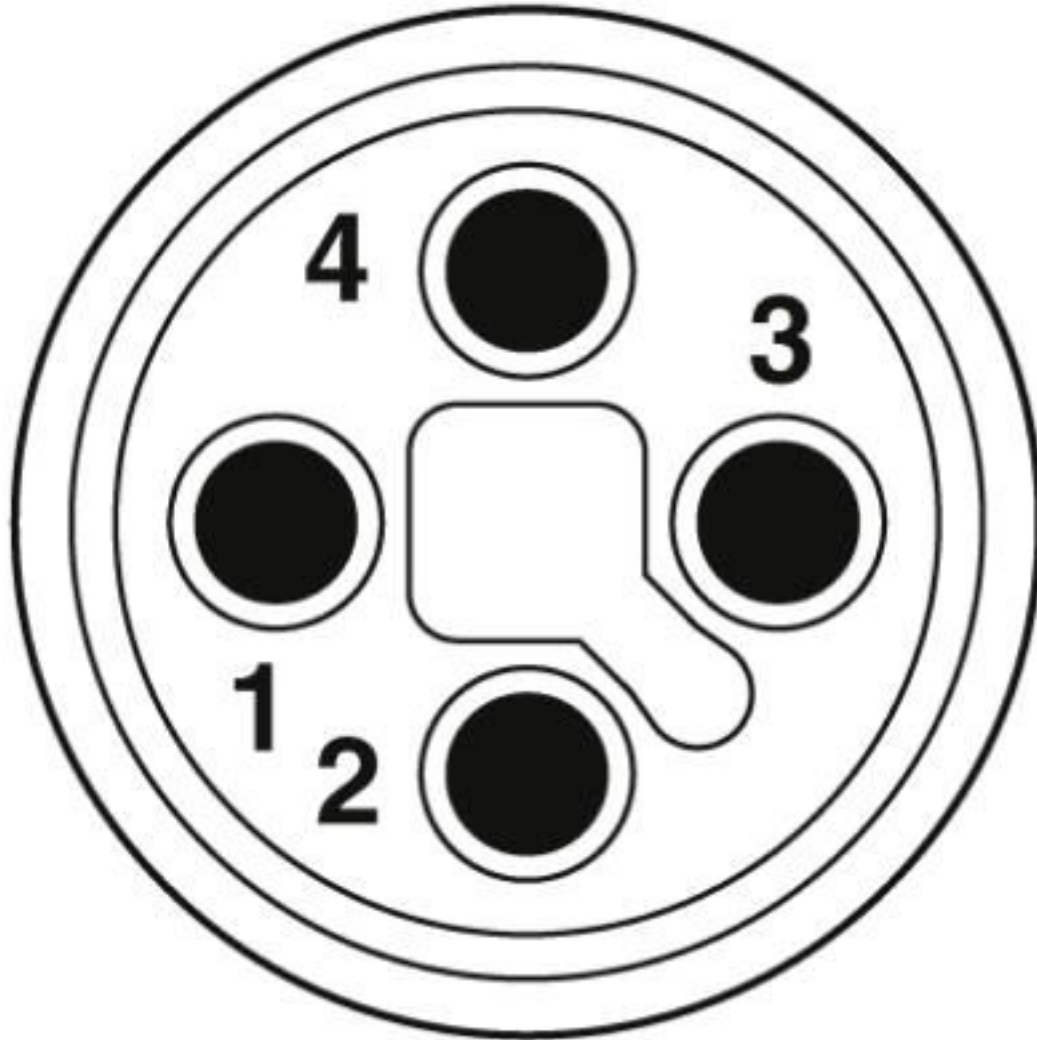
Circuit diagram



Contact assignment of M12 connector/socket

## Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

Schematic diagram

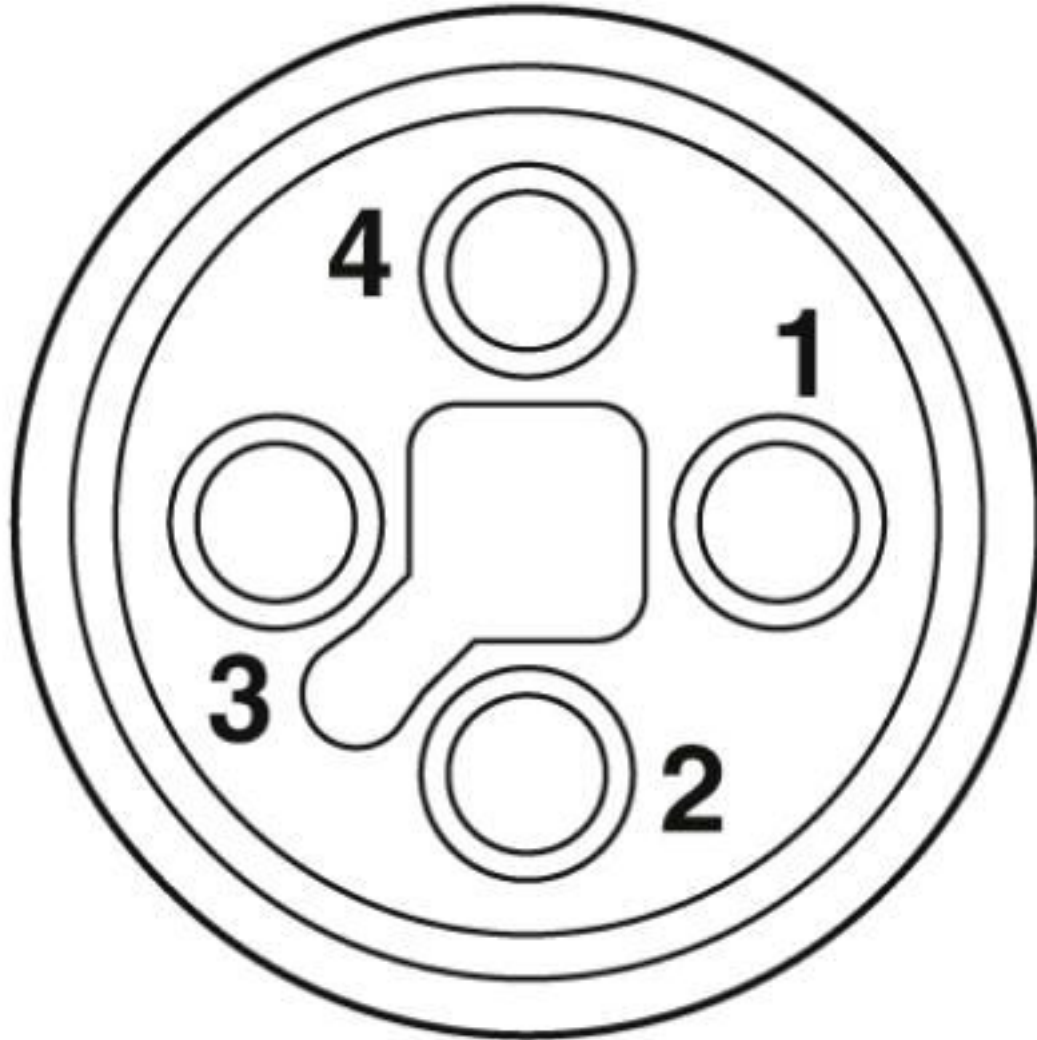


Pin assignment for M12 plug, 4-pos., T-coded, view of plug side



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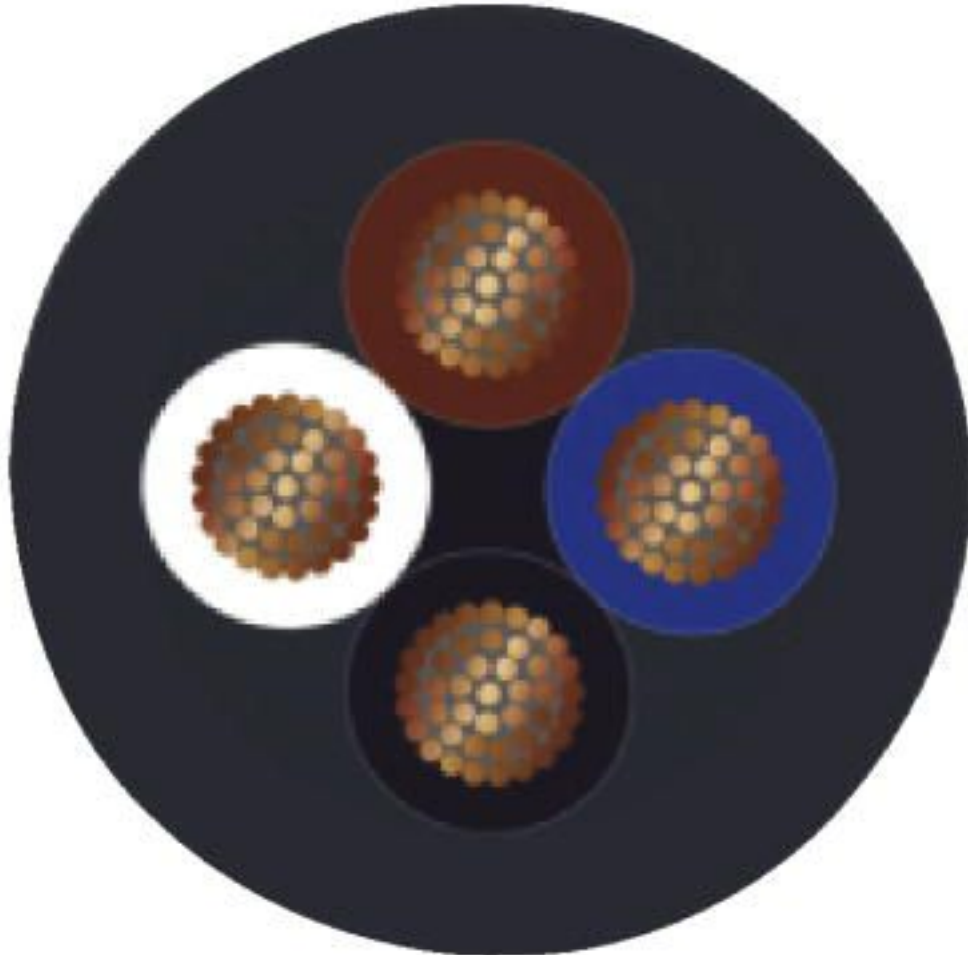
Schematic diagram



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

# Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

Cable cross section



PUR halogen-free black [PUR]

## Classifications

eCl@ss

eCl@ss 10.0.1	27060311
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27143400
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

# Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

## Classifications

### ETIM

ETIM 5.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855

### UNSPSC

UNSPSC 13.2	31251501
UNSPSC 19.0	31251501
UNSPSC 20.0	31251501
UNSPSC 21.0	31251501

## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / EAC-RoHS / cULus Listed

#### Ex Approvals

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E468743
Nominal voltage UN		63 V	
Nominal current IN		12 A	
mm <sup>2</sup> /AWG/kcmil		16	

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E468743
Nominal voltage UN		63 V	
Nominal current IN		12 A	
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EAC-RoHS		RU D- DE.HB35.B.00387
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## Power cable - SAC-4P-M12MRT/10,0-PUR/M12FRT - 1415199

### Approvals

cULus Listed



### Accessories

#### Accessories

#### Screwdriver tools

Tool - SAC BIT M12-D16 - 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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