

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's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)



Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, T-coded, cable length: 1 m

#### Why buy this product

- Easy and safe: 100% electrically tested plug-in components
- ☑ Protection against incorrect connection using special T-coding



# **Key Commercial Data**

Packing unit	1 STK
GTIN	4 046356 836234
GTIN	4046356836234
Weight per Piece (excluding packing)	120.000 g
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### **Dimensions**

Length of cable	1 m

### Ambient conditions

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



# Technical data

#### Ambient conditions

	IP68
General	
Rated current at 40°C	12 A
Rated voltage	63 V (DC)
	63 V DC
Number of positions	4
Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	T power
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	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA
Material of grip body	PA
Material, knurls	Zinc die-cast, nickel-plated

## Standards and Regulations

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 mm²
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



# Technical data

### Cable

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
Acceleration	10 m/s²
Cable weight	109 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq$ 1 G $\Omega$ *km (at 20 °C)
Conductor resistance	$\leq$ 13 $\Omega$ /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



## Technical data

### **Environmental Product Compliance**

For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

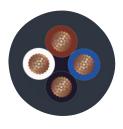
## **Drawings**

## Schematic diagram



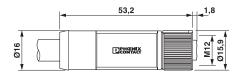
Pin assignment of M12 socket, 4-pos., T-coded, socket side view

#### Cable cross section



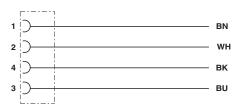
PUR halogen-free black [PUR]

Dimensional drawing



M12 x 1 socket, straight

### Circuit diagram



Contact assignment of the M12 socket

## Classifications

### eCl@ss

eCl@ss 4.0	27140815
eCl@ss 4.1	27140815
eCl@ss 5.0	27143423
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



# Classifications

### **ETIM**

ETIM 3.0	EC002061
ETIM 4.0	EC001855
ETIM 5.0	EC001855
ETIM 6.0	EC001855

## **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

# Approvals

## Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

## Approval details

UL Listed	LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E468743		E468743
Nominal voltage UN			63 V	
Nominal current IN			12 A	
mm²/AWG/kcmil			16	

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E468743		E468743
Nominal voltage UN			63 V	



# Approvals

Nominal current IN	12 A
mm²/AWG/kcmil	16

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

Phoenix Contact 2018 © - all rights reserved http://www.phoenixcontact.com