

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.



Network cable, Single Pair Ethernet CAT B (1 Gbps), 2-position, PUR halogen-free, green, shielded (Advanced Shielding Technology), Plug straight M12-SPE / IP67, on Socket straight M12-SPE / IP67, cable length: 5 m

## Product description

Single Pair Ethernet M12 patch cable

## Your advantages

- Future-proof: standardized connectors in accordance with IEC 63171-5 (IP67)
- Easily integrated: Male and female versions for established inductive sensors and flying leads
- Straightforward servicing: M12 connectors are compatible with IP20 connectors for SPE
- Safely shielded: patch cables with Advanced Shielding Technology

## Commercial data

Item number	1478373
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF02
Product key	AF1BJI
GTIN	4063151893279
Weight per piece (including packing)	270 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	PL

1478373

<https://www.phoenixcontact.com/us/products/1478373>

## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	Single Pair Ethernet
Number of positions	2
No. of cable outlets	1
Shielded	yes

### Insulation characteristics

Overvoltage category	I
----------------------	---

### Interfaces

Bus system	Ethernet
Signal type/category	Single Pair Ethernet CAT B (ISO/IEC 63171), 1 Gbps

### Signaling

Status display	no
Status display present	no

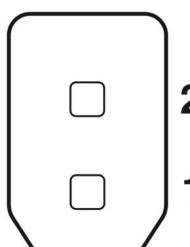
### Electrical properties

Nominal voltage $U_N$	72 V DC
Transmission medium	Copper
Transmission speed	up to 1 Gbps

### Material specifications

Flammability rating according to UL 94	V0
--	----

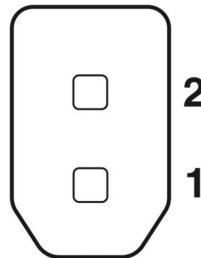
### Connector

Connection 1	
Dimensional drawing	
	Pin assignment, Single Pair Ethernet, 2 pos.
Type	Plug, 2-position, shielded (Advanced Shielding Technology)
Number of positions	2
Shielded	yes

Shielding	Advanced Shielding Technology
Signal type/category	Single Pair Ethernet CAT B (ISO/IEC 63171), 1 Gbps
Overtoltage category	II
Degree of pollution	3
Tightening torque	0.4 Nm
Material Contact	Cu
Material Contact surface	Ni/Au
Material Contact carrier	PP
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 63171-5

## Connection 2

## Dimensional drawing



Pin assignment, Single Pair Ethernet, 2 pos.

Type	Socket, 2-position, shielded (Advanced Shielding Technology)
Number of positions	2
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Single Pair Ethernet CAT B (ISO/IEC 63171), 1 Gbps
Overtoltage category	II
Degree of pollution	3
Tightening torque	0.4 Nm
Material Contact	Cu
Material Contact surface	Ni/Au
Material Contact carrier	PP
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 63171-5

## Cable/line

Cable length	5 m
Single Pair Ethernet PUR flexible, green [99B]	
Dimensional drawing	
UL AWM Style	20233 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	Single Pair Ethernet PUR flexible, green [99B]
Conductor structure	1 x 2 x AWG 22/7, S/FTP
AWG signal line	22
Conductor cross section	2x 0.34 mm <sup>2</sup>
Wire diameter incl. insulation	1.6 mm
External cable diameter	5.50 mm ±0.1 mm
Outer sheath, material	PUR
External sheath, color	green
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white, blue
Twisted pairs	2 cores to the pair
Overall twist	1 pair with fillers twisted horizontally
Optical shield covering	90 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	22 mm
Smallest bending radius, movable installation	44 mm
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
	UL 1581, Sec. 1061 (Cable Flame)
	according to CSA FT1

# SPE-T1-M12MS/ 5,0-99B/M12FS - Network cable

1478373

<https://www.phoenixcontact.com/us/products/1478373>



Resistance to oil	in accordance with DIN EN 60811-404
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (Cable, flexible installation)
	-25 °C ... 80 °C (for installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

## Standards and regulations

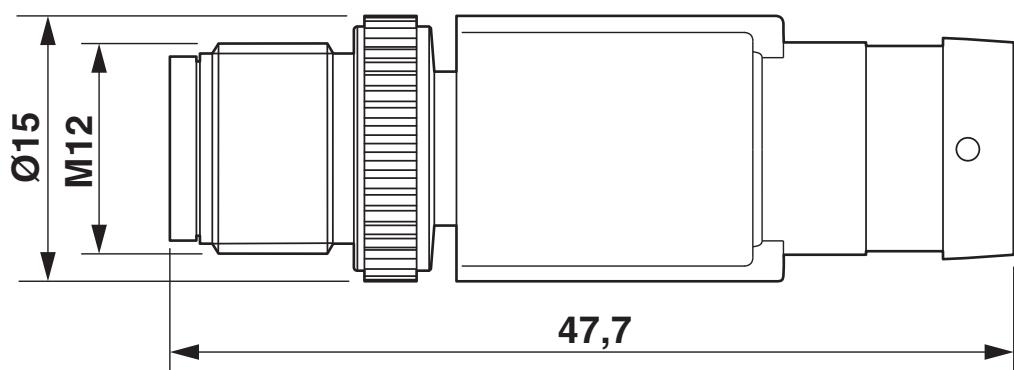
Standard designation	M12 connector
Standards/specifications	IEC 63171-5
Note	T1-SPE

1478373

<https://www.phoenixcontact.com/us/products/1478373>

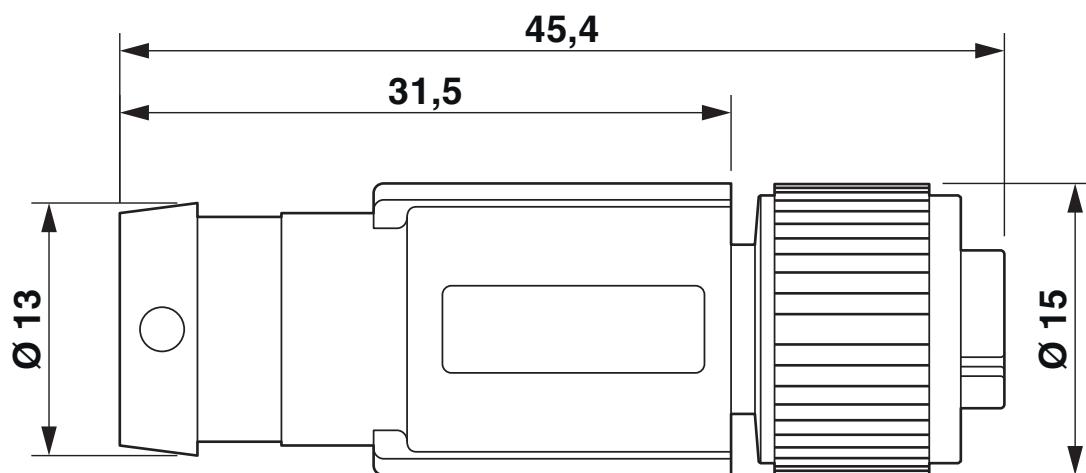
## Drawings

Dimensional drawing



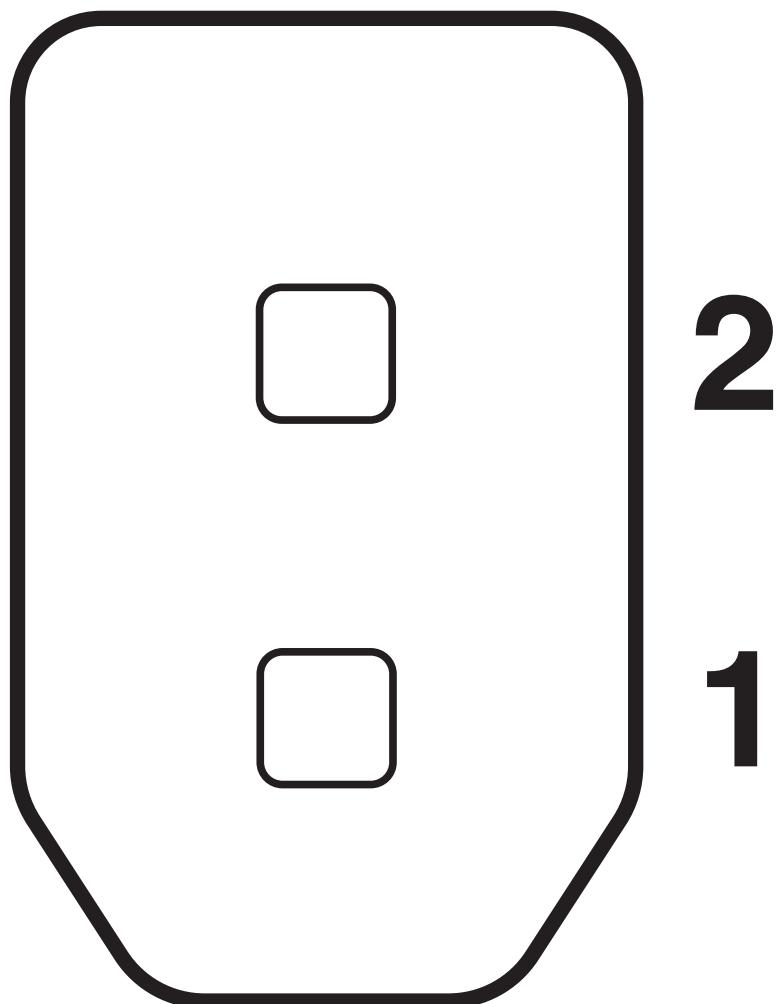
Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



Pin assignment, Single Pair Ethernet, 2 pos.

## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 9.0	EC001855
----------	----------

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

### EF3.0 Climate Change

CO2e kg	21.162 kg CO2e
---------	----------------

Phoenix Contact 2025 © - 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)