

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



1478377

<https://www.phoenixcontact.com/us/products/1478377>

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 Plug 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	1478377
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF02
Product key	AF1BJI
GTIN	4063151894221
Weight per piece (including packing)	271 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	PL

1478377

<https://www.phoenixcontact.com/us/products/1478377>

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
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

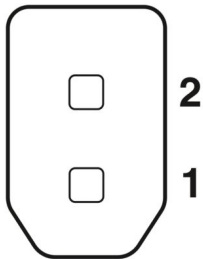
Nominal voltage U_N	72 V DC
Transmission medium	Copper
Transmission speed	up to 1 Gbps

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

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

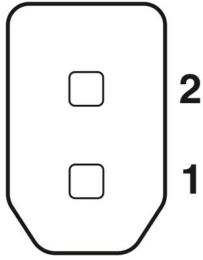


1478377

<https://www.phoenixcontact.com/us/products/1478377>

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

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



1478377

<https://www.phoenixcontact.com/us/products/1478377>

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 ²
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/M12MS - Network cable



1478377

<https://www.phoenixcontact.com/us/products/1478377>

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

Other resistance	UV resistant
Standard designation	M12 connector
Standards/specifications	IEC 63171-5
Note	T1-SPE

1478377

<https://www.phoenixcontact.com/us/products/1478377>

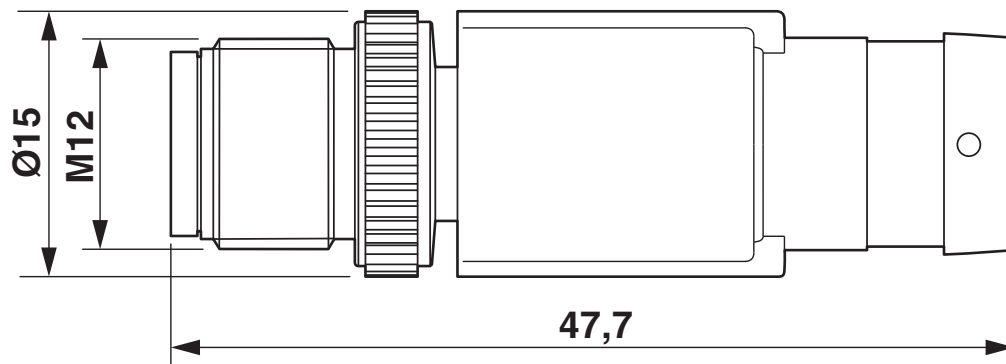
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Plug, M12 x 1, straight, shielded

1478377

<https://www.phoenixcontact.com/us/products/1478377>

Schematic diagram



Pin assignment, Single Pair Ethernet, 2 pos.

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



1478377

<https://www.phoenixcontact.com/us/products/1478377>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

UNSPSC

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

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



1478377

<https://www.phoenixcontact.com/us/products/1478377>

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%
-------------------------------------	----------------------------

EF3.1 Climate Change

CO2e kg	21.074 kg CO2e
---------	----------------

Phoenix Contact 2026 © - 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