

# SPE-T1-M8MSM/2,0-97B/M8MSM - Network cable



1217526

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Network cable, Single Pair Ethernet CAT A (10 Mbps), 2-position, PVC, black, shielded (Advanced Shielding Technology), Plug straight M8-SPE / IP67, on Plug straight M8-SPE / IP67, cable length: 2 m

## Product description

Single Pair Ethernet M8 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
- Efficient: Device connectors for SMD, THR, and wave soldering processes enable automated processing
- Straightforward servicing: M8 connectors are compatible with IP20 connectors for SPE
- Safely shielded: patch cables with Advanced Shielding Technology

## Commercial data

Item number	1217526
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF02
Product key	AF1BJI
GTIN	4063151299767
Weight per piece (including packing)	94 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	PL

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## 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
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### Interfaces

Bus system	Ethernet
Signal type/category	Single Pair Ethernet CAT A (ISO/IEC 63171), 10 Mbps

### Signaling

Status display	no
Status display present	no

### Electrical properties

Nominal voltage $U_N$	48 V AC
	60 V DC
Transmission medium	Copper
Transmission speed	up to 10 Mbps

### Material specifications

Flammability rating according to UL 94	V0
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### Connection data

#### Connection assignment

Contact   Color (signal designation)   Contact (optional)	1   WH (RX/TX+)   1
	2   BU (RX/TX-)   2

### Connector

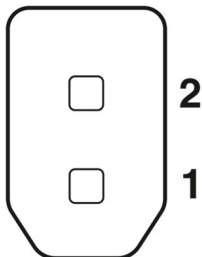
#### Connection 1

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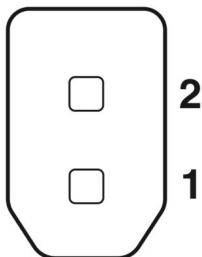


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Dimensional drawing	 <p>Pin assignment, Single Pair Ethernet, 2 pos.</p>
Type	M8 Plug, straight, 2-position, shielded (Advanced Shielding Technology), Keying: SPE
Number of positions	2
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Single Pair Ethernet CAT B (IEC 63171)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Overvoltage category	II
Degree of pollution	3
Tightening torque	0.2 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
Degree of protection	IP65 IP67
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M8 connector
Standards/regulations	IEC 63171-5

## Connection 2

Dimensional drawing	 <p>Pin assignment, Single Pair Ethernet, 2 pos.</p>
Type	M8 Plug, straight, 2-position, shielded (Advanced Shielding

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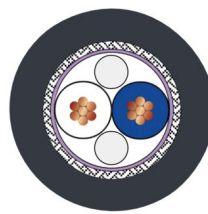
<https://www.phoenixcontact.com/us/products/1217526>

	Technology), Keying: SPE
Number of positions	2
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Single Pair Ethernet CAT B (IEC 63171)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
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	IP67
Ambient temperature (operation)	-25 °C ... 85 °C
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Standards/regulations	IEC 63171-5

## Cable/line

Cable length	2 m
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Single Pair Ethernet PUR flexible, black [97B]

Dimensional drawing	
UL AWM Style	2095 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	Single Pair Ethernet PUR flexible, black [97B]
Conductor structure	1 x 2 x AWG 22/7, S/FTP
Conductor structure signal line	7x
AWG signal line	22
Conductor cross section	2x 0.34 mm²
Wire diameter incl. insulation	1.65 mm

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External cable diameter	5.10 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	black
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white, blue
Thickness, outer sheath	0.55 mm
Twisted pairs	2 cores to the pair
Overall twist	1 pair with fillers twisted horizontally
Optical shield covering	80 %
Max. conductor resistance	≤ 59.4 Ω/km
Insulation resistance	≥ 5 GΩ*km
Wave impedance	100 Ω ±15 Ω (at 20 MHz)
Nominal voltage, cable	300 V
Minimum bending radius, fixed installation	4 x D
Smallest bending radius, fixed installation	21 mm
Flame resistance	According to FT-2
Ambient temperature (operation)	-20 °C ... 80 °C (cable, fixed installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

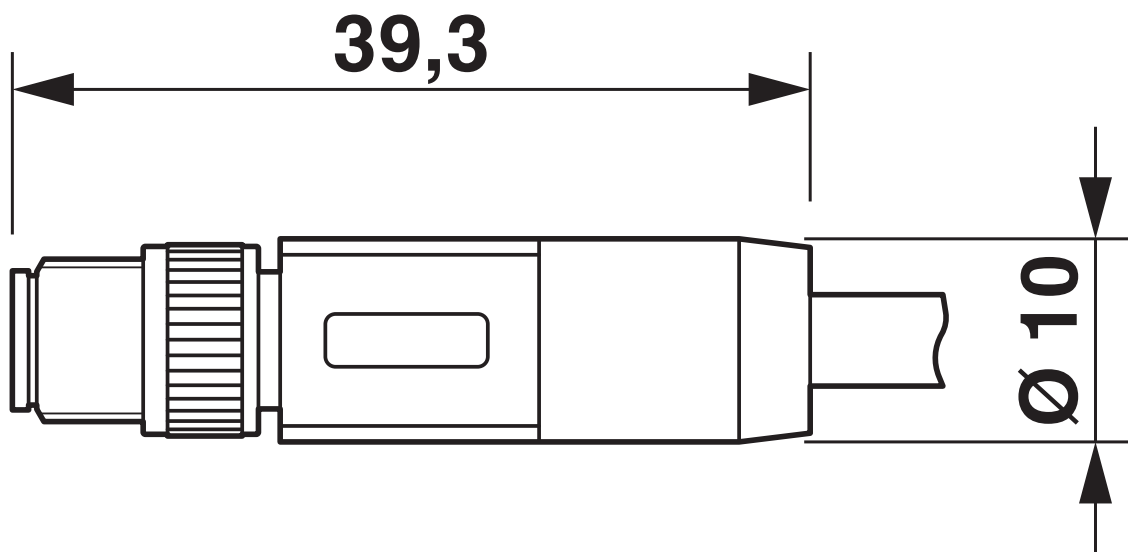
## Standards and regulations

### M8

Standard designation	M8 connector
Standards/specifications	IEC 63171-5
Note	T1-SPE

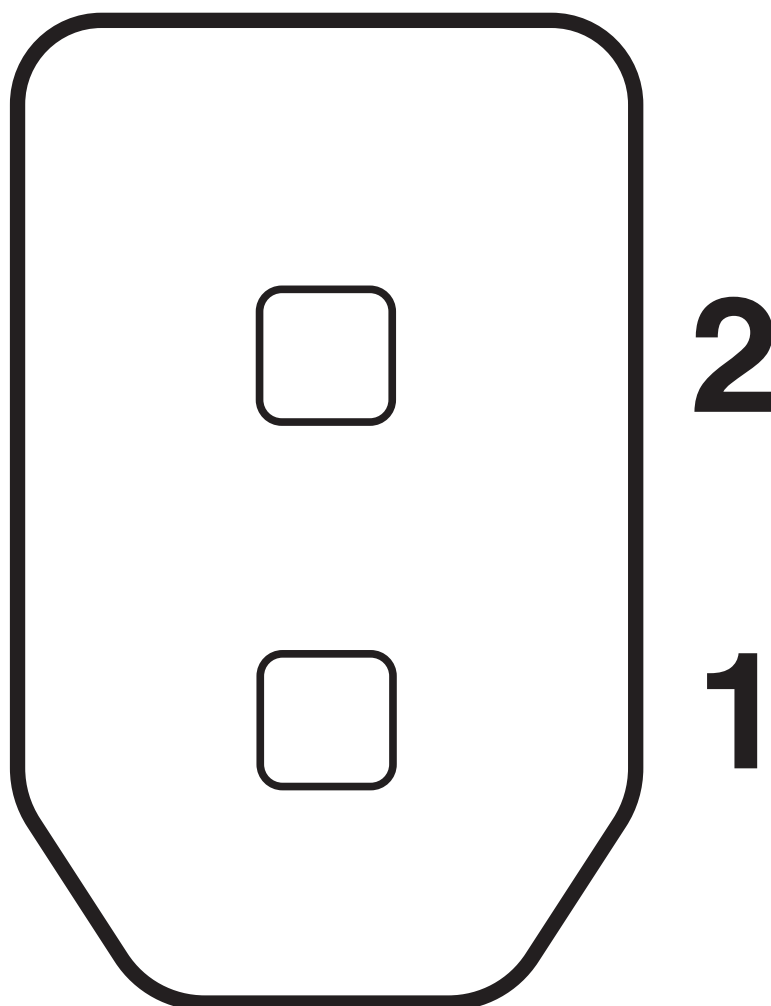
## Drawings

### Dimensional drawing



M8 x 1 male plug, straight version

Schematic diagram



Pin assignment, Single Pair Ethernet, 2 pos.

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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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	5.575 kg CO2e