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SPE-T1-M8MSM/2,0-97B/M8FSF - Network cable

1217524

https://www.phoenixcontact.com/pc/products/1217524

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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 Socket 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	1217524
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	BF1BJI
GTIN	4063151299828
Weight per piece (including packing)	95.3 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

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	72 V DC
Transmission medium	Copper

Material specifications

Flammability rating according to UL 94	V0

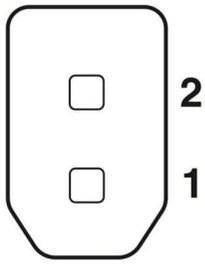
Connection data

Pin assignment

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

Connector

Connection 1

Dimensional drawing	

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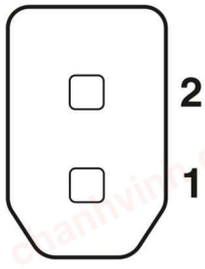
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	Pin assignment, Single Pair Ethernet, 2 pos.
Type	M8 Plug, straight, 2-position, shielded (Advanced Shielding Technology), Keying: SPE
Number of positions	2
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Single Pair Ethernet 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	 Pin assignment, Single Pair Ethernet, 2 pos.
Type	M8 Socket, 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

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	IP67
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M8 connector
Standards/regulations	IEC 63171-5

Cable/line

Cable length	2 m

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
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

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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

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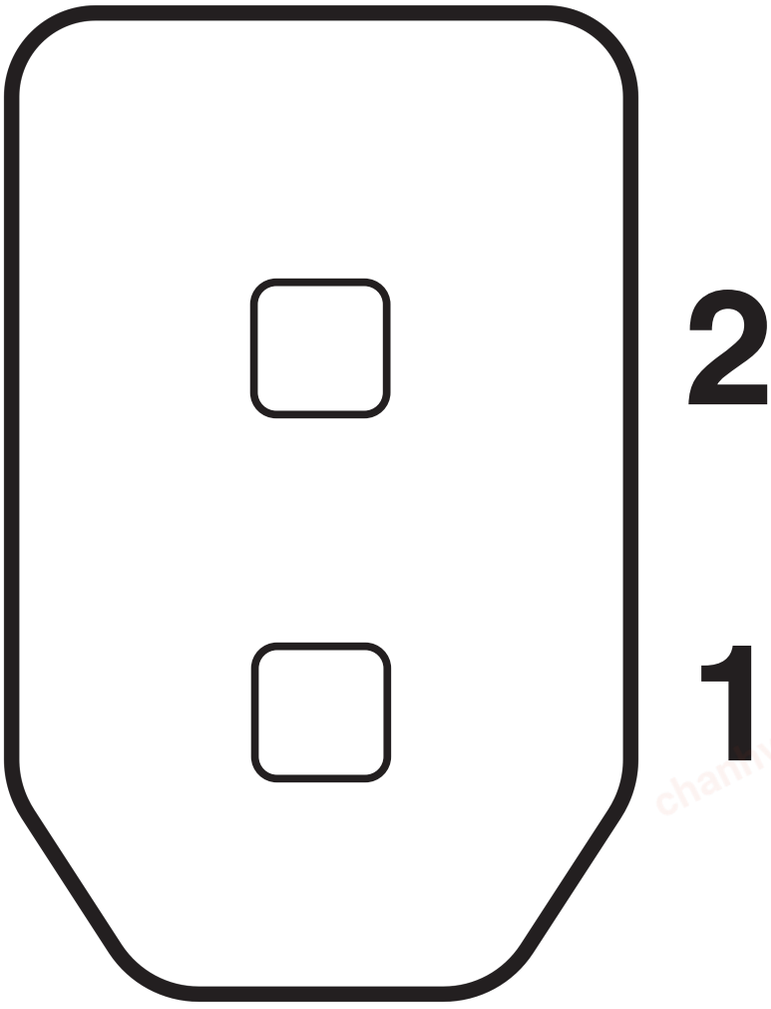
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Drawings

Schematic diagram



Pin assignment, Single Pair Ethernet, 2 pos.

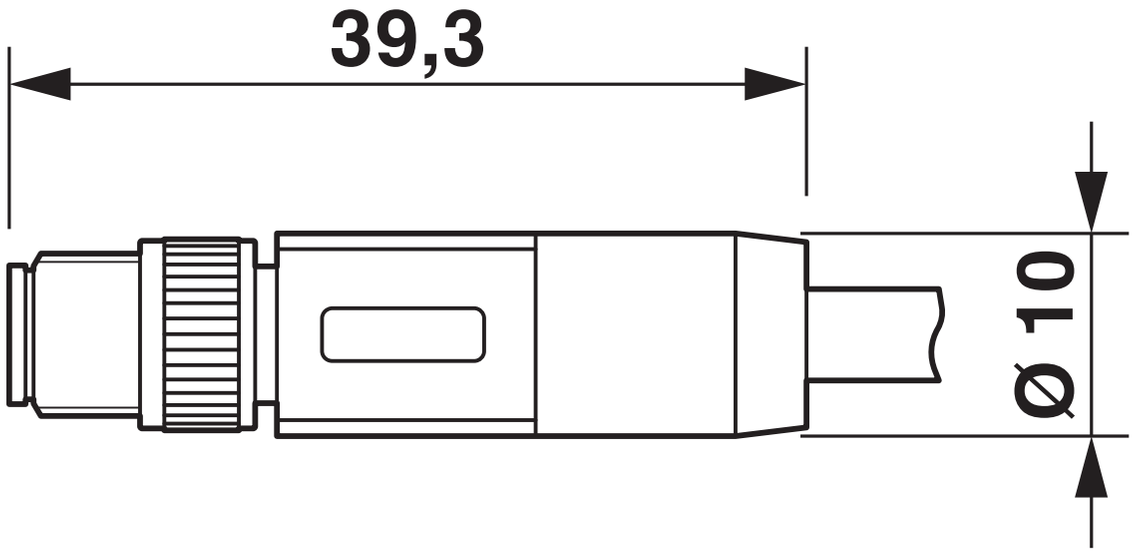
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Dimensional drawing



M8 x 1 male plug, straight version

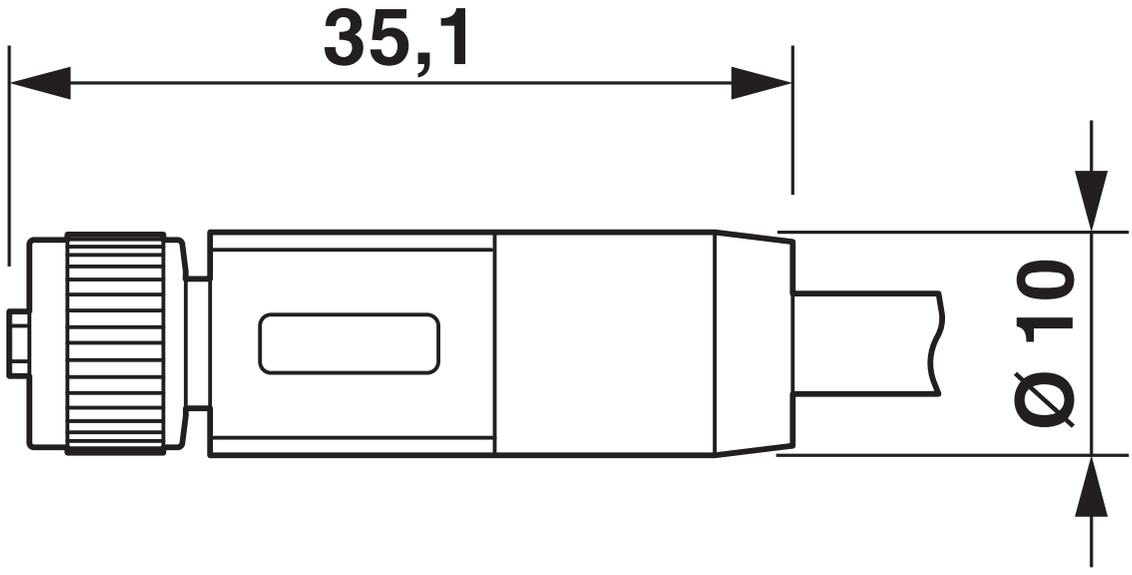
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Dimensional drawing



Socket M8 x 1, straight

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Classifications

ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

ETIM

ETIM 9.0	EC001855

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%

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