

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



1478377

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Network cable, Single Pair Ethernet CAT B (1 Gbps), 2-position halogen-free, 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 |
| Sales key | BF1BJI |
| Product key | BF1BJI |
| GTIN | 4063151894221 |
| Weight per piece (including packing) | 22.22 g |
| Weight per piece (excluding packing) | 22.22 g |
| Country of origin | PL |

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Technical data

Product properties

| | |
|----------------------|-------------------------|
| Product type | Data cable preassembled |
| Sensor type | Single Pair Ethernet |
| Number of positions | 2 |
| Application | Standard |
| 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 |

Material specifications

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

Connector

Connection 1

| | |
|---------------------------------|------------------------------|
| Type | Plug straight M12-SPE / IP67 |
| Shielded | yes |
| Insertion/withdrawal cycles | ≤ 100 |
| Degree of protection | IP67 |
| Ambient temperature (operation) | -25 °C ... 85 °C |
| Insertion/withdrawal cycles | 100 |

Connection 2

| | |
|--------------|------------------------------|
| Type | Plug straight M12-SPE / IP67 |
| Shielded | yes |
| Handle color | black |
| Material | CuSn (Contact) |
| | Ni/Au (Contact surface) |
| | PP (Contact carriers) |

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| | |
|---------------------------------|----------------------------------------------------|
| | TPU, hardly inflammable, self-extinguishing (Grip) |
| | Zinc die-cast, nickel-plated (Screw connection) |
| | FKM (Seal) |
| Insertion/withdrawal cycles | ≤ 100 |
| Ambient temperature (operation) | -25 °C ... 85 °C |
| Degree of protection | IP67 |

Cable/line

| | |
|--------------|-----|
| Cable length | 5 m |
|--------------|-----|

Single Pair Ethernet PUR flexible, green [99B]

| | |
|---------------------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Cable weight | 42 kg/km |
| 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 |
| Conductor structure signal line | 7x |
| AWG signal line | 22 |
| Conductor cross section | 2x 0.34 mm ² |
| Wire diameter incl. insulation | 1.8 mm |
| External cable diameter | 5.8 mm ±0.3 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 |
| Thickness, outer sheath | 0.8 mm |
| 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) |
| Cable capacity | 48 nF/km |
| Nominal voltage, cable | ≤ 100 V |

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| | |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Test voltage Core/Core | 1000 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 1000 V (50 Hz, 1 min.) |
| Minimum bending radius, fixed installation | 4 x D |
| Minimum bending radius, flexible installation | 8 x D |
| Flame resistance | according to IEC 60332-1-2 |
| 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

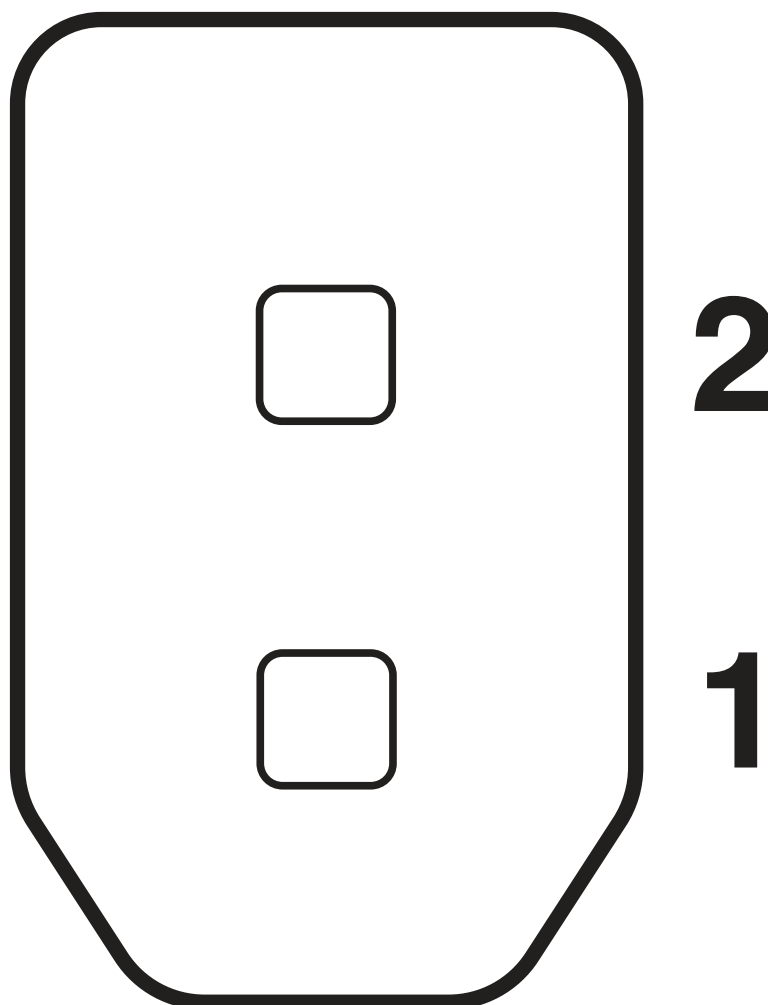
| | |
|----------------------|------|
| Degree of protection | IP65 |
| | IP67 |

Standards and regulations

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

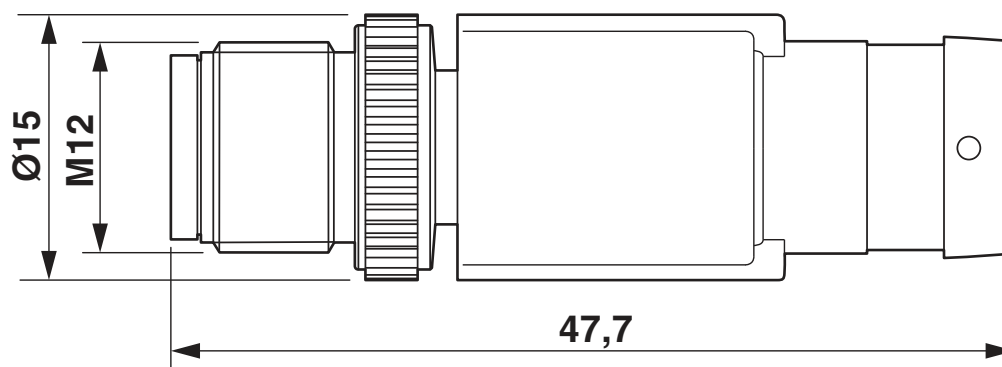
Drawings

Schematic diagram



Pin assignment, Single Pair Ethernet, 2 pos.

Dimensional drawing



Plug, M12 x 1, straight, shielded

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Classifications

ECLASS

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

ETIM

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|----------|----------|
| ETIM 8.0 | EC001855 |
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