

VS-M12MS-M12MS-94C-LI/2,0 - Network cable



1413722

<https://www.phoenixcontact.com/us/products/1413722>

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Network cable, Ethernet CAT5 (1 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Tinned copper braided shield), Plug straight M12, coding: A / IP67, on Plug straight M12, coding: A / IP67, cable length: 2 m

Commercial data

| | |
|--------------------------------------|--------------------|
| Item number | 1413722 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF04 |
| Product key | BF1CMI |
| Catalog page | Page 303 (PC-2011) |
| GTIN | 4046356475884 |
| Weight per piece (including packing) | 149.6 g |
| Weight per piece (excluding packing) | 145 g |
| Customs tariff number | 85444210 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|----------------------|-------------------------|
| Product type | Data cable preassembled |
| Application | Standard |
| Sensor type | Ethernet |
| Number of positions | 8 |
| No. of cable outlets | 1 |
| Shielded | yes |

Insulation characteristics

| | |
|---------------------|---|
| Degree of pollution | 3 |
|---------------------|---|

Interfaces

| | |
|----------------------|--|
| Signal type/category | Ethernet CAT5 (based on IEC 11801), 1 Gbps |
|----------------------|--|

Electrical properties

| | |
|-----------------------|---------|
| Nominal voltage U_N | 30 V AC |
| | 30 V DC |
| Transmission medium | Copper |

Mechanical properties

Mechanical data

| | |
|-----------------------------|------------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|------------|

Material specifications

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

Connector

Connection 1

| | |
|----------------------|--------------------------|
| Type | Plug straight M12 / IP67 |
| Coding type | A (Standard) |
| Handle color | black |
| Degree of protection | IP67 |

Connection 2

| | |
|----------------------|--------------------------|
| Type | Plug straight M12 / IP67 |
| Coding type | A (Standard) |
| Handle color | black |
| Degree of protection | IP67 |

Cable/line

| | |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|


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Ethernet drag chain CAT5, 4-pair [94C]

| | |
|---|--|
| Dimensional drawing |  |
| Cable weight | 57 kg/km |
| UL AWM Style | 20963 (80°C/30 V) |
| Number of positions | 8 |
| Shielded | yes |
| Cable type | Ethernet drag chain CAT5, 4-pair [94C] |
| Conductor structure | 4x2xAWG26/19, S/UTP |
| Signal runtime | 5.3 ns/m |
| Conductor structure signal line | 19x 0.10 mm |
| AWG signal line | 26 |
| Conductor cross section | 4x 2x 0.14 mm ² |
| Wire diameter incl. insulation | 1 mm |
| External cable diameter | 6.90 mm +0.1 mm ... 0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | water blue RAL 5021 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | white/blue-blue, white/orange-orange, white/green-green, white/brown-brown |
| Thickness, outer sheath | 0.85 mm |
| Twisted pairs | 2 cores to the pair |
| Overall twist | Four pairs and four fillers to the core |
| Optical shield covering | 90 % |
| Insulation resistance | ≥ 500 MΩ*km |
| Coupling resistance | ≤ 100.00 mΩ/m (at 10 MHz) |
| Loop resistance | ≤ 290.00 Ω/km |
| Wave impedance | 100 Ω ±5 Ω (at 100 MHz) |
| Cable capacity | approx. 50 nF/km (at 1 kHz) |
| Nominal voltage, cable | ≤ 100 V |
| Test voltage Core/Core | 700 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 700.00 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 | 28 mm |
| Smallest bending radius, movable installation | 56 mm |

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| | |
|--|---|
| Max. bending cycles | 5000000 |
| Tensile strength | ≤ 100 N |
| Near end crosstalk attenuation (NEXT) | 65.3 dB (with 1 MHz) |
| | 56.3 dB (at 4 MHz) |
| | 50.3 dB (at 10 MHz) |
| | 47.2 dB (at 16 MHz) |
| | 45.8 dB (at 20 MHz) |
| | 42.9 dB (at 31.25 MHz) |
| | 38.4 dB (at 62.5 MHz) |
| | 35.3 dB (at 100 MHz) |
| Power-summed near end crosstalk attenuation (PSNEXT) | 62.3 dB (with 1 MHz) |
| | 53.3 dB (at 4 MHz) |
| | 47.3 dB (at 10 MHz) |
| | 44.2 dB (at 16 MHz) |
| | 42.8 dB (at 20 MHz) |
| | 39.9 dB (at 31.25 MHz) |
| | 35.4 dB (at 62.5 MHz) |
| | 32.3 dB (at 100 MHz) |
| Return attenuation (RL) | 23 dB (at 4 MHz) |
| | 24.1 dB (at 8 MHz) |
| | 25 dB (at 10 MHz) |
| | 25 dB (at 16 MHz) |
| | 25 dB (at 20 MHz) |
| | 23.6 dB (at 31.25 MHz) |
| | 21.5 dB (at 62.5 MHz) |
| | 20.1 dB (at 100 MHz) |
| Shield attenuation | 3.2 dB (with 1 MHz) |
| | 6 dB (at 4 MHz) |
| | 9.5 dB (at 10 MHz) |
| | 12.1 dB (at 16 MHz) |
| | 13.6 dB (at 20 MHz) |
| | 17.1 dB (at 31.25 MHz) |
| | 24.8 dB (at 62.5 MHz) |
| | 32 dB (at 100 MHz) |
| Halogen-free | according to IEC 60754-1 |
| Flame resistance | according to IEC 60332-1-2 |
| Resistance to oil | in accordance with EN 60811-2-1 |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -20 °C ... 80 °C (Cable, flexible installation) |
| Ambient temperature (installation) | -20 °C ... 80 °C |

Environmental and real-life conditions

Ambient conditions

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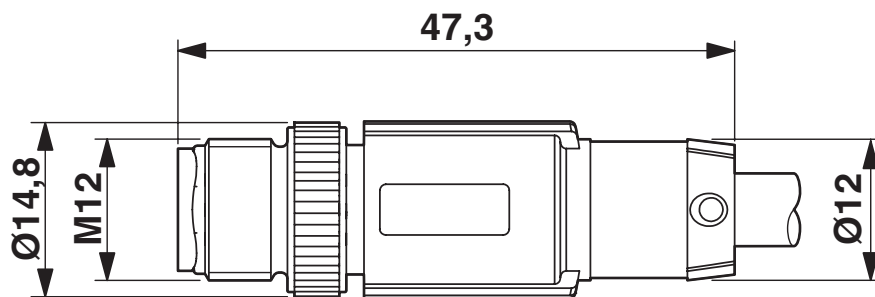
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| | |
|----------------------|-----------------|
| Degree of protection | IP65 |
| | IP67 |
| | IP65/IP67/IP69K |

Drawings

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

| | |
|----------|----------|
| 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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