# VS-M12FSBP-OE-94C-LI/2,0 - Device connector rear mounting

1412820

https://www.phoenixcontact.com/us/products/1412820

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Device connector rear mounting, Ethernet, 8-position, connection method: Cable connection, cable length: 2 m, degree of protection: IP65/IP67, 4x2xAWG26/19, S/UTP, water blue RAL 5021, this item is expected to be lead-free from Q1 2027 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

## Your advantages

- Preassembled with cables in various standard lengths for immediate use
- Customer-specific assemblies and cable lengths can be supplied
- Sealed on the cable side for optimum tightness of seal
- Cable designs for all common networks and fieldbuses
- For high transmission safety: shield connection to the housing with optional EMC nut

## Commercial data

| | |
|---|---|
| Item number | 1412820 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB25 |
| Product key | ABQDGI |
| GTIN | 4046356475686 |
| Weight per piece (including packing) | 142.4 g |
| Weight per piece (excluding packing) | 135.309 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

## Technical data

### Notes

| | |
|---|---|
| Notes on operation | The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration. |

### Product properties

| | |
|---|---|
| Product type | Data cable preassembled |
| Number of positions | 8 |
| No. of cable outlets | 1 |
| Coding | A |
| Thread type | M12 |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | II |
| Degree of pollution | 3 |

### Interfaces

| | |
|---|---|
| Signal type/category | Ethernet |

### Electrical properties

| | |
|---|---|
| Rated surge voltage | 0.8 kV |
| Contact resistance | ≤ 3 mΩ |
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 48 V AC |
| Nominal current $I_N$ | 2 A |
| Transmission medium | Copper |

### Mechanical properties

Mechanical data

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

### Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V2 |
| Material grommet GRP | FKM |
| Contact material | CuZn |
| Contact surface material | Ni/Au |
| Contact carrier material | PA 6.6 |

### Connection data

Connection technology

| | |
|---|---|
| Connection method | Cable connection |

Conductor connection

| | |
|---|---|
| Contact connection type | Socket |
| Connection method | Cable connection |
| Tightening torque | 2 Nm ... 3 Nm (Installation-side) |

## Connector

Connection 1

| | |
|---|---|
| Type | Flush-type female connector straight M12 |
| Locking type | SPEEDCON |
| Coding type | A (Standard) |
| Degree of protection | IP67 |

Connection 2

| | |
|---|---|
| Type | free cable end |

## Cable/line

| | |
|---|---|
| Cable length | 2.00 m |

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

| | |
|---|---|
| Dimensional drawing |  |
| UL AWM Style | 20233 (80 °C / 600 V) |
| Number of positions | 8 |
| Shielded | yes |
| Cable type | Ethernet drag chain CAT5, 4-pair [94C] |
| Conductor structure | 4x2xAWG26/19, S/UTP |
| AWG signal line | 26 |
| Conductor cross-section | 4x 2x 0.14 mm² |
| Wire diameter incl. insulation | 1 mm ±0.05 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 |
| 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 |
| Loop resistance | ≤ 290.00 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 | 28 mm |
| Smallest bending radius, movable installation | 56 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 5000000, Bending radius: 7,5 x D, Traversing rate: 3 m/s, Acceleration: 5 m/s² |
| Halogen-free | according to IEC 60754-1 |
| Flame resistance | according to IEC 60332-1-2 |
| | according to CSA C 22.2 No. 210-FT1 |
| Resistance to oil | in accordance with DIN EN 60811-404 |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -20 °C ... 80 °C (Cable, flexible installation) |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP67 (When plugged in) |
| | IP65 (When plugged in) |
| | IP65/IP67 |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C (Plug / socket) |
| | -40 °C ... 85 °C (without mechanical actuation) |
| Ambient temperature (operation) (Cable, flexible installation) | -25 °C ... 85 °C (Cable, flexible installation) |

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1412820

**EAC**
Approval ID: 19060508

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440103 |
| ECLASS-15.0 | 27440103 |

### ETIM

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|---|---|
| ETIM 10.0 | EC003570 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | f8b4a809-7c12-4d29-b725-096cc937bc55 |


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