

# VS-M12FSBP-OE-94B-LI/5,0 - Device connector rear mounting



1407877

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Device connector rear mounting, Ethernet CAT5 (1 Gbps), 8-position, Socket, M12, A-coding, on free cable end, Cable connection, cable length: 5 m, 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	1407877
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGI
GTIN	4046356475402
Weight per piece (including packing)	271.4 g
Weight per piece (excluding packing)	257.555 g
Customs tariff number	85444290
Country of origin	DE

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## 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.
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### Product properties

Product type	Data cable preassembled
Application	Data On the device side
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 CAT5 (based on IEC 11801), 1 Gbps
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### Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	48 V AC
Nominal current $I_N$	2 A
Transmission medium	Copper
Transmission speed	1 Gbps

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
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### Material specifications

Material Housing	GD-Zn
Material Housing surface	Ni
Material Insulating body	PA 6.6
Material Contact	CuZn

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Material Contact surface	Ni/Au
Material Seal	FKM
Flammability rating according to UL 94	V0
Material for screw connection	CuZn alloy, nickel-plated

## Connection data

### Connection technology

Connection method	Cable connection
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### Conductor connection

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

## Connector

### Connection 1

Head design	Socket
Head thread type	M12
Coding	A


### Connection 2

Head design	free cable end
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## Cable/line

Cable length	5 m
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### Ethernet flexible CAT5, 4-pair [94B]

Dimensional drawing	
UL AWM Style	21238 (80 °C / 600 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet flexible CAT5, 4-pair [94B]
Conductor structure	4x2xAWG26/7, SF/UTP
AWG signal line	26
Conductor cross-section	4x 2x 0.14 mm <sup>2</sup>
Wire diameter incl. insulation	0.96 mm ±0.05 mm

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External cable diameter	6.40 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Optical shield covering	70 %
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	26 mm
Smallest bending radius, movable installation	51 mm
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 EN 60811-2-1
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)

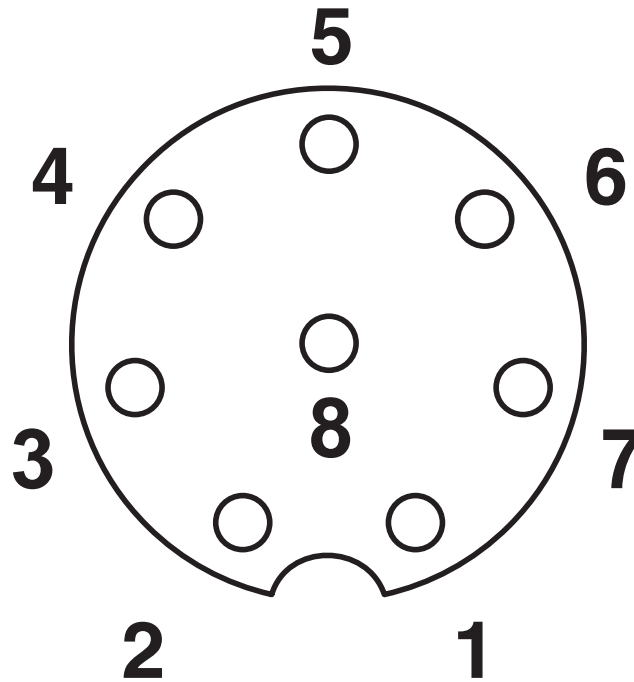
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## Drawings

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

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Circuit diagram



Contact assignment of the M12 socket

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## Approvals

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**EAC**

Approval ID: 19060508

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## Classifications

### ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27440103

### ETIM

ETIM 10.0	EC003570
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### UNSPSC

UNSPSC 21.0	26121600
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## 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	f51de71f-3cad-4d7a-8eea-e22d1c914f60

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