

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, degree of protection: IP65/IP67, cable length: 2 m, number of positions: 8, connection method: Cable connection, Ethernet, 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, 4x2xAWG26/19, S/UTP, water blue RAL 5021

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	ABQDG1
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

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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
Sensor type	Ethernet
Number of positions	8
No. of cable outlets	1
Shielded	yes
Coding	A
Thread type	M12

Insulation characteristics

Ovvoltage category	II
Degree of pollution	3

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
Wave impedance	100 Ω

Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

Material specifications

Flammability rating according to UL 94	V2
Seal material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

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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
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Cable/line

Cable length	2.00 m
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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 mm ²
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

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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	$\geq 500 \text{ M}\Omega \text{km}$
Loop resistance	$\leq 290.00 \text{ }\Omega/\text{km}$
Wave impedance	$100 \text{ }\Omega \pm 5 \text{ }\Omega$ (at 100 MHz)
Nominal voltage, cable	$\leq 100 \text{ V}$
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/s ²
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)

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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 9.0	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.
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EU REACH SVHC

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

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