

Network cable - VS-M12FSBP-OE-94C-LI/2,0 - 1412820

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Assembled Ethernet cable, shielded, 4-pair, AWG 26 suitable for drag chain (19-wire), RAL 5021 (sea blue), M12 flush-type socket, rear wall/screw mounting with M16 thread on free cable end, line, length 2 m

Why buy this product

- ✓ Pre-assembled 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

RoHS

Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 475686
GTIN	4046356475686

Technical data

Dimensions

Length of cable	2 m
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Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)
	-25 °C ... 85 °C (cable, flexible installation)
	-40 °C ... 85 °C (cable, fixed installation)

General data

Note	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if
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General data

	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.
Rated current at 40°C	2 A
Rated voltage	30 V
Number of positions	8
Signal type/category	Ethernet CAT5 (IEC 11801:2002)
Overvoltage category	II
Degree of pollution	3
Alternative short product description	Ethernet cable
Contact material	CuZn
Contact carrier material	PA 6.6
Contact surface material	Ni/Au

Characteristics head 1

Head type	Flush-type socket straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8
Coding	A (Standard)

Characteristics head 2

Head type	free cable end
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Standards and Regulations

Flammability rating according to UL 94	V0
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Cable

Cable type	Ethernet drag chain CAT5
Cable type (abbreviation)	94C
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801), 1 Gbps
Cable structure	4x2xAWG26/19; S/UTP
Conductor cross section	4x 2x 0.14 mm²
AWG signal line	26
Conductor structure signal line	19x 0.10 mm
Core diameter including insulation	1 mm
Wire colors	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
Shielding	Tinned copper braided shield
Optical shield covering	90 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	0.85 mm
External cable diameter D	6.9 mm +0.1 mm ... 0.2 mm

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Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Number of bending cycles	5000000
Minimum bending radius, drag chain applications	7,5 x D
Traversing rate	3 m/s
Acceleration	5 m/s ²
Tensile strength GRP	≤ 100 N
Cable weight	57 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 290.00 Ω/km
Cable capacity	approx. 50 nF/km (at 1 kHz)
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
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)
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)
Return loss (RL)	23 dB (at 4 MHz)

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Cable

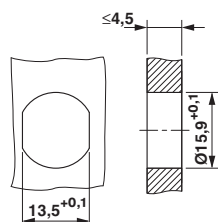
	24.1 dB (at 8 MHz)
	25 dB (at 10 MHz)
	25 dB (at 16 MHz)
	25 dB (at 20 MHz)
	23.6 dB (at 31.25 MHz)
	21.5 dB (at 62.5 MHz)
	20.1 dB (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	$\leq 100.00 \text{ m}\Omega/\text{m}$ (at 10 MHz)
Nominal voltage, cable	$\leq 100 \text{ V}$
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	according to IEC 60332-1-2
Halogen-free	According to IEC 60754-1
Resistance to oil	according to 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
Ambient temperature (storage/transport)	-20 °C ... 80 °C

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

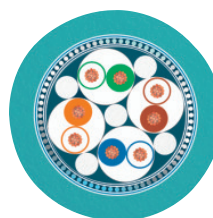
Drawings

Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

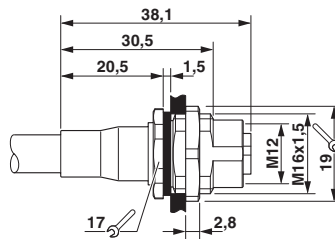
Cable cross section



Ethernet drag chain CAT5 [94C]

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Dimensional drawing



M12 flush-type connector

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC



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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>