

# Network cable - VS-MSD-MSD-93E-LI/15,0 - 1404301

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Assembled Ethernet cable, CAT5e, shielded, 2-pair, 26 AWG stranded (7-wire), RAL 5021 (water blue), M12 plug to M12 plug, line, length 15 m



## Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356690089

## Technical data

### Mechanical characteristics

Number of positions	4
Insertion/withdrawal cycles	≥ 100
Length of cable	15 m
Degree of protection	IP65/IP67/IP69K

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 60 °C (cable, flexible installation)

### Material data

Flammability rating according to UL 94	V0
Contact carrier material	PA 6.6
Contact material	CuSn
Contact surface material	Ni/Au
Cable gland material	Zinc die-cast, nickel-plated

### Electrical characteristics

Transmission characteristics (category)	CAT5 (IEC 11801:2002)
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### Standards and Regulations

# Network cable - VS-MSD-MSD-93E-LI/15,0 - 1404301

## Technical data

### Standards and Regulations

Flammability rating according to UL 94	V0
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### Line characteristics

Cable type	Ethernet
Cable abbreviation	J-LI02YS(ST) CH 2 x 2 x 26 AWG
Cable structure	2x2xAWG26/7; SF/UTP
Conductor cross section	2x 2x 0.14 mm <sup>2</sup>
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	1 mm -0.2 mm
External cable diameter	5.75 mm ±0.15 mm
Wire colors	white/orange-orange, white/green-green
External sheath, color	water blue RAL 5021
Insulation resistance	≥ 5 GΩ*km
Conductor resistance	≤ 284 Ω/km
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Wave impedance	100 Ω ±15 % (at 1 ... 100 MHz)
Near end crosstalk attenuation (NEXT)	66 dB/m (with 1 MHz)
	57 dB/m (at 4 MHz)
	52 dB/m (at 10 MHz)
	50 dB/m (at 16 MHz)
	47 dB/m (at 20 MHz)
	45 dB/m (at 31.25 MHz)
	40 dB/m (at 62.5 MHz)
	36 dB/m (at 100 MHz)
Wave attenuation	0.028 dB/m (with 1 MHz)
	0.06 dB/m (at 4 MHz)
	0.085 dB/m (at 10 MHz)
	0.115 dB/m (at 16 MHz)
	0.128 dB/m (at 20 MHz)
	0.162 dB/m (at 31.25 MHz)
	0.23 dB/m (at 62.5 MHz)
	0.29 dB/m (at 100 MHz)
Signal speed	0.77 c
Signal runtime	4.3 ns/m
Interference suppression	approx. 65 dB (at 30 MHz)
Coupling resistance	≤ 5.00 mΩ/m (at 20 MHz)
Nominal voltage, cable	50 V <sub>rms</sub>
	125 V (Peak value, not for high-power applications)
Test voltage Core/Core	1000 V <sub>rms</sub>
Test voltage Core/Shield	500 V <sub>rms</sub>

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## Technical data

### Line characteristics

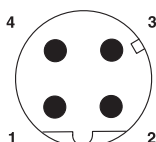
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Shielding	Plastic-coated aluminum foil, tinned copper braided shield
Optical shield covering	85 %
Outer sheath, material	Halogen-free compound, HM 2 in acc. with VDE 0207
Material conductor insulation	Foam-Skin PE
Conductor material	Bare Cu litz wires
Cable weight	43 kg/km
Smallest bending radius, fixed installation	30 mm (cable, fixed installation)
Smallest bending radius, movable installation	78 mm (cable, flexible installation)
Flame resistance	according to VDE 0482 Part 265-2-1
	according to IEC 332-1

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

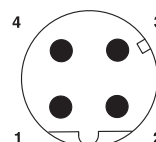
## Drawings

Schematic diagram



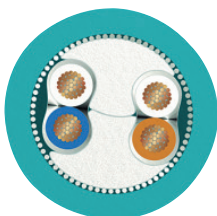
Pin assignment M12 male connector, 4-pos., D-coded, male side

Schematic diagram



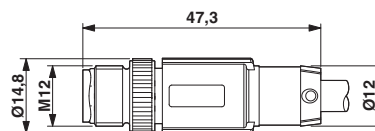
Pin assignment M12 male connector, 4-pos., D-coded, male side

Cable cross section



Ethernet [93E]

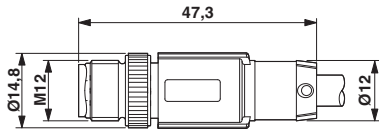
Dimensional drawing



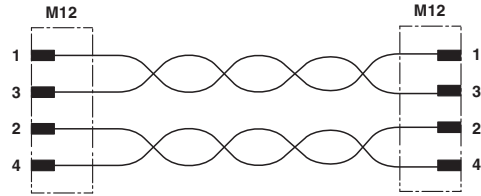
Plug, M12 x 1, straight, shielded

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Dimensional drawing



Circuit diagram



Plug, M12 x 1, straight, shielded

Contact assignment of M12 connector/socket

## Approvals

Approvals

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Approvals

EAC

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Ex Approvals

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Approval details

EAC		EAC-Zulassung
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