

## Network cable - VS-M12MS-IP20-94C-LI/2,0 - 1413007

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Network cable, Ethernet CAT5 (1 Gbps), 8-position, PUR, Plug straight M12, on Plug straight RJ45, cable length: 2 m

RoHS

### Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356475747
Weight per Piece (excluding packing)	137.480 g
Custom tariff number	85444210
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	2 m
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#### Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP20 (RJ45 connector)

#### General data

Rated voltage	30 V AC
	30 V DC
Number of positions	8
Signal type/category	Ethernet CAT5 (on the basis of IEC 11801), 1 Gbps
Degree of pollution	3
Alternative short product description	Ethernet cable

#### Characteristics head 1

Head type	Plug straight M12
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## Technical data

### Characteristics head 1

Color	black
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### Characteristics head 2

Head type	Plug straight RJ45
Color	gray

### Standards and Regulations

Flammability rating according to UL 94	HB
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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 mm <sup>2</sup>
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
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 <sup>2</sup>
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)

# Network cable - VS-M12MS-IP20-94C-LI/2,0 - 1413007

## Technical data

### Cable

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-summated 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)
	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	≤ 100.00 mΩ/m (at 10 MHz)
Nominal voltage, cable	≤ 100 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

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## Technical data

### Cable

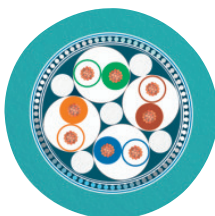
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 80 °C
Ambient temperature (storage/transport)	-20 °C ... 80 °C

### Environmental Product Compliance

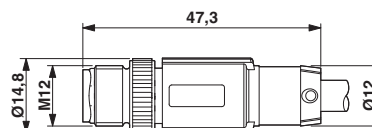
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Cable cross section



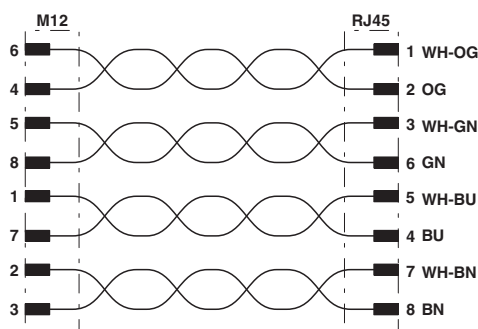
Dimensional drawing



Ethernet drag chain CAT5 [94C]

Plug, M12 x 1, straight, shielded

Circuit diagram



## Classifications

eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	19030300
eCl@ss 6.0	27060300
eCl@ss 7.0	27060308

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## Classifications

### eCl@ss

eCl@ss 8.0	27060308
eCl@ss 9.0	27060308

### ETIM

ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 5.0	EC002599
ETIM 6.0	EC000830

### UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	26121604

## Approvals

### Approvals

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### Approvals


EAC

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### Ex Approvals

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### Approval details

EAC		RU C- DE.AI30.B.00767
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