

## Network cable - VS-M12MSS-IP20-94F/ 0,5/10G - 1440591

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Assembled Ethernet cable, CAT6<sub>A</sub>, shielded, 4-pair, AWG 26 stranded (7-wire), RAL 5021 (water blue), M12 plug on RJ45 plug, SPEEDCON, length 0.5 m



### Key Commercial Data

Packing unit	1 STK
Weight per Piece (excluding packing)	60.000 g
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	0.5 m
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#### Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP20 (RJ45 connector)

#### General data

Rated current at 40°C	0.5 A
Rated voltage	48 V
Number of positions	8
Signal type/category	Ethernet CAT6 <sub>A</sub> , 10 Gbps
Overvoltage category	I
Degree of pollution	1

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## Technical data

### Characteristics head 1

Head type	Plug straight M12 SPEEDCON / IP65
No. of positions (pin connector pattern)	8 (8)
Coding	X (Data)
Color	black
Shielded	yes

### Characteristics head 2

Head type	Plug straight RJ45 / IP20
No. of positions (pin connector pattern)	8 (8)
Color	gray
Shielded	yes

### Cable

Cable type	Ethernet 10 Gbit
Cable type (abbreviation)	94F
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT6 <sub>A</sub> , 10 Gbps
Cable structure	4x2xAWG26/7; S/FTP
Conductor cross section	4x 2x 0.14 mm <sup>2</sup>
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	1.04 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined foil
Overall twist	4 pairs for core
Shielding	Tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	0.65 mm
External cable diameter D	6.4 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength short-term/long-term	≤ 100 N
Cable weight	42 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Bare Cu litz wires

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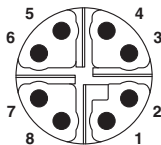
## Technical data

### Cable

Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 290 Ω (per km)
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Signal runtime	5.13 ns/m
Shield attenuation	≥ 80 dB (at 30 ... 100 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	in accordance with DIN 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

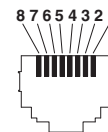
## Drawings

Schematic diagram



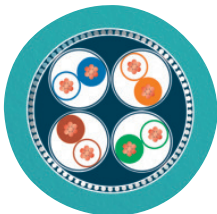
M12 Cat6A, 8-pos. plug pin assignment, pin side view

Schematic diagram



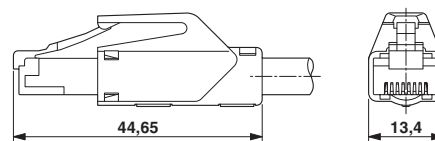
Connector pin assignment plug RJ45

Cable cross section



Ethernet 10 Gbit [94F]

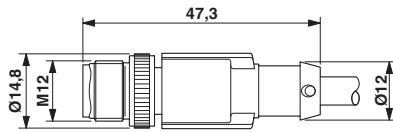
Dimensional drawing



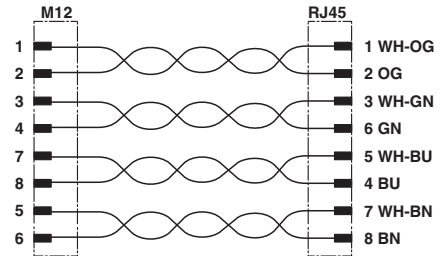
RJ45 connector dimensional drawing

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Dimensional drawing



Circuit diagram



M12 connector dimensional drawing

## Classifications

### eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27060307
eCl@ss 6.0	27060390
eCl@ss 7.0	27060390
eCl@ss 8.0	27060308
eCl@ss 9.0	27060308

### ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 5.0	EC002599

### UNSPSC

UNSPSC 6.01	26121609
UNSPSC 7.0901	26121609
UNSPSC 11	26121609
UNSPSC 12.01	26121609
UNSPSC 13.2	26121609

## Approvals

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## Approvals

Approvals


UL Listed / cUL Listed / EAC / cULus Listed


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Ex Approvals

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## Approval details

UL Listed  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> FILE E 335024	
Nominal current IN	0.5 A
Nominal voltage UN	30 V

cUL Listed  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> FILE E 335024	
Nominal current IN	0.5 A
Nominal voltage UN	30 V

EAC EAC-Zulassung
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cULus Listed 
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