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## 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 pc
Weight per Piece (excluding packing)	60.0 GRM
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>
Surge voltage category	I
Pollution degree	1

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

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

### Technical data

#### Cable

Insulation resistance	≥ 500 MΩ*km
Conductor resistance	≤ 290 Ω/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

### 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	27060390

#### ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 5.0	EC001855

#### UNSPSC

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

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

### Classifications

#### UNSPSC

UNSPSC 13.2	26121609
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### Approvals

#### Approvals


#### Approvals


UL Listed / cUL Listed / cULus Listed


#### Ex Approvals

#### Approvals submitted

### Approval details

UL Listed 	
Nominal current IN	0.5 A
Nominal voltage UN	30 V

cUL Listed 	
Nominal current IN	0.5 A
Nominal voltage UN	30 V

cULus Listed 	
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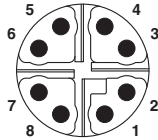
### Drawings

<https://www.phoenixcontact.com/us/products/1440591>



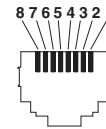
## Network cable - VS-M12MSS-IP20-94F/ 0,5/10G - 1440591

Schematic diagram



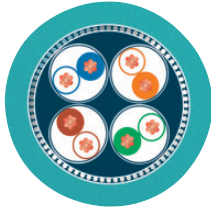
M12 Cat6<sub>A</sub>, 8-pos. plug pin assignment, pin side view

Schematic diagram



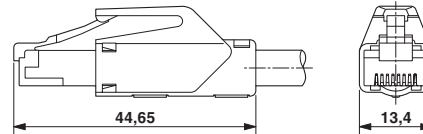
Connector pin assignment plug RJ45

Cable cross section



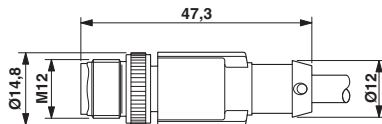
Ethernet 10 Gbit [94F]

Dimensioned drawing



RJ45 connector dimensional drawing

Dimensioned drawing



M12 connector dimensional drawing

Circuit diagram

