

## Hybrid cable - VS-M12MS-94H-HYB/10,0 SCO - 1402445

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Assembled Ethernet cable, CAT5e, shielded, 8-wire, 4 x 26 AWG (data) and 4 x 20 AWG (power), RAL 9005 (black), M12 hybrid plug to free cable end, length: 10.0 m



**Ethernet**

### Key commercial data

Packing unit	1 pc
GTIN	4 046356 616027
Weight per Piece (excluding packing)	908.3 g
Custom tariff number	85444210
Country of origin	Germany
Note	Made to Order (non-returnable)

### Technical data

#### Dimensions

Length of cable	10 m
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#### Ambient conditions

Degree of protection	IP65
	IP67

#### General data

Rated current at 40°C	6 A (Power)
	0.5 A (Data)
Rated voltage	30 V (Power and data)
Number of positions	8
Signal type/category	Ethernet hybrid CAT5 (IEC 11801), 100 Mbps
Pollution degree	2

#### Characteristics head 1

Head type	Plug Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8 (4+4)

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## Technical data

### Characteristics head 1

Coding	Y (Hybrid)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	PP (Contact carrier, data)
	PA (Contact carrier, power)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Shielded	Yes
Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Insertion/withdrawal cycles	$\geq 100$
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

### Characteristics head 2

Head type	free cable end
No. of positions (pin connector pattern)	8
Shielded	Yes

### Cable

Cable type	Ethernet hybrid
Cable type (abbreviation)	94H
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet hybrid CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG26+1x4xAWG20
Conductor cross section	4x 0.15 mm <sup>2</sup> (Data)
	4x 0.6 mm <sup>2</sup> (Power)
AWG signal line	26
AWG power supply	20
Conductor structure signal line	19x 0.10 mm
Conductor structure, voltage supply	19x 0.20 mm
Core diameter including insulation	1.05 mm (Data)
	1.4 mm (Power)
Wire colors	White/orange, orange, white/green, green, white, blue, brown, black
Overall twist	1 star quad and 4 wires with 2 fillers
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Black RAL 9005
External cable diameter D	7.6 mm $\pm$ 0.2 mm
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000

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## Technical data

### Cable

Minimum bending radius, drag chain applications	10 x D
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s <sup>2</sup>
Cable weight	87 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP (Data)
	PP (Power)
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≥ 280 Ω (Data)
	≥ 34.6 Ω (Power)
Working capacitance	nom. 50 nF (per kilometer)
Wave impedance	100 Ω ±15 Ω (4 MHz ... 100 MHz)
Shield attenuation	≥ 80 dB (30 MHz ... 125 MHz)
Differential impedance	100 Ω ±5 % (at 100 MHz)
Nominal voltage, cable	≤ 30 V (Peak value, not for high-power applications)
Test voltage Core/Core	1500 V (50 Hz, 1 min.)
Test voltage Core/Shield	1500 V (50 Hz, 1 min.)
Special properties	Free of substances which would hinder coating with paint or varnish
	Silicone-free
Flame resistance	In acc. with UL 1581, section 1061
Halogen-free	according to IEC 60754
	in accordance with DIN VDE 0472 part 815
Resistance to oil	According to IEC 60811-2-1
	according to VDE 0282 Part 10
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 70 °C (cable, flexible installation)

## Classifications

### eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	27259205
eCl@ss 6.0	27269202
eCl@ss 7.0	27449203
eCl@ss 8.0	27060308

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### Classifications

#### ETIM

ETIM 4.0	EC002599
ETIM 5.0	EC002599

#### UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	26121616

### Approvals

#### Approvals


#### Approvals


UL Listed / cUL Listed / cULus Listed

#### Ex Approvals

#### Approvals submitted

### Approval details

UL Listed 	
Nominal current I <sub>N</sub>	0.175 A
Nominal voltage U <sub>N</sub>	56.5 V

cUL Listed 	
Nominal current I <sub>N</sub>	0.175 A
Nominal voltage U <sub>N</sub>	56.5 V

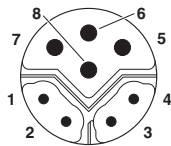
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### Approvals

cULus Listed 

### Drawings

Schematic diagram



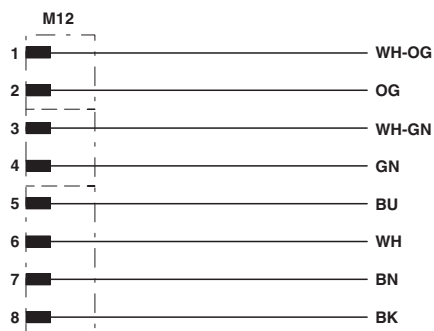
M12 hybrid connector pin assignment, 8-pos., pin side view

Cable cross section

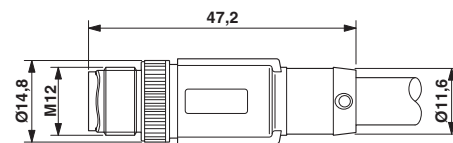


Ethernet hybrid [94H]

Circuit diagram



Dimensioned drawing



M12 connector, straight, shielded