

## Network cable - VS-M8MS-M8MS/93B-1,0 - 1402449

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Assembled ETHERNET cable, type B, shielded, star quad, AWG 22 stranded (7-wire), RAL 6018 (yellow-green), M8 Ethernet plug to M8 Ethernet plug, length: 1.0 m, suitable for PROFINET and EtherCAT



### Key commercial data

Packing unit	1 pc
Custom tariff number	85444290
Country of origin	Germany

### Technical data

#### Dimensions

Length of cable	1 m
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#### Ambient conditions

Degree of protection	IP65
	IP67

#### General data

Rated current at 40°C	3 A
Rated voltage	60 V
Number of positions	4
Standards/regulations	M8 connector IEC 61076-2-104
Surge voltage category	II
Pollution degree	3

#### Characteristics head 1

Head type	Plug Straight M8 / IP67
No. of positions (pin connector pattern)	4 (4)
Color	black

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### Technical data

#### Characteristics head 1

Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	CuZn (nickel-plated) (Screw connection)
Shielded	Yes
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

#### Characteristics head 2

Head type	Plug Straight M8 / IP67
No. of positions (pin connector pattern)	4 (4)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	CuZn (nickel-plated) (Screw connection)
	TPU, hardly inflammable, self-extinguishing (Grip)
	TPU, hardly inflammable, self-extinguishing (Grip)
	CuZn (nickel-plated) (Screw connection)
Shielded	Yes
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

#### Cable

Cable type	PROFINET PVC stranded CAT5e
Cable type (abbreviation)	93B
UL AWM style	21694
Signal type/category	PROFINET CAT5 (IEC 11801:2002), 100 Mbps
	PROFINET CAT5e (TIA 568B:2001), 100 bps
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm <sup>2</sup>

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### Technical data

#### Cable

AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	approx. 1.5 mm
Wire colors	White, yellow, blue, orange
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Green RAL 6018
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	6.5 mm ±0.2 mm
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Torsion force	± 180 °/m (30,000 torsion cycles)
Cable weight	67 kg/km
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120 Ω (per kilometer)
Working capacitance	52 pF
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Flame resistance	According to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-50 °C ... 70 °C

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## 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

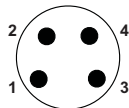
ETIM 4.0	EC002599
ETIM 5.0	EC000830

### UNSPSC

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

## Drawings

Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

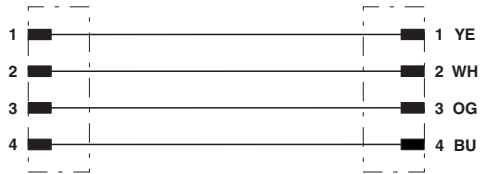
Cable cross section



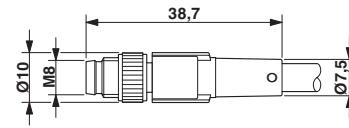
PROFINET PVC stranded CAT5e [93B]

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Circuit diagram



Dimensioned drawing



M8 x 1 male plug, straight version