

Network cable - VS-M12MS-M12MS-93B-LI/2,0 - 1416146

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Assembled PROFINET cable, CAT5e, shielded, star quad, AWG 22 stranded (7-wire), RAL 6018 (yellow-green), M12 plug on M12 plug, line, length 2 m



Key commercial data

Packing unit	1 1
Weight per Piece (excluding packing)	180.0 GRM
Custom tariff number	85444210
Country of origin	Poland

Technical data

Mechanical characteristics

Number of positions	4
Shielded	Yes
Insertion/withdrawal cycles	≥ 100
Cable diameter	6.50 mm
Cable structure	1x4xAWG22/7; SF/TQ
Length of cable	2 m

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 50 °C (cable, flexible installation)
Degree of protection	IP65/IP67/IP69K

Material data

Inflammability class according to UL 94	V0
Outer sheath, material	PVC
External sheath, color	Green RAL 6018

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Technical data

Electrical characteristics

Transmission characteristics (category)	CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001)
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Line characteristics

Cable type	PROFINET PVC stranded CAT5e
UL AWM style	21694
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	approx. 1.5 mm
External cable diameter	6.5 mm ± 0.2 mm
Wire colors	White, yellow, blue, orange
External sheath, color	Green RAL 6018
Transmission medium	Copper
Insulation resistance	≥ 500 MΩ*km
Conductor resistance	≤ 120 Ω/km
Transmission characteristics (category)	CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001)
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.)
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Cable weight	67 kg/km
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Torsion force	± 180 °/m (30,000 torsion cycles)
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

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Line characteristics

Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °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	27060307
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

ETIM

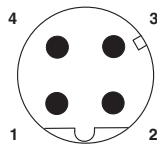
ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 5.0	EC000830

UNSPSC

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

Drawings

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

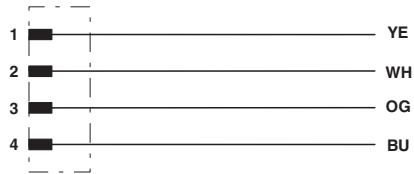
Cable cross section



PROFINET [93B]

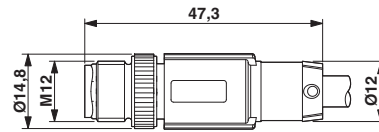
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Circuit diagram



Contact assignment of the M12 connector

Dimensioned drawing



Plug, M12 x 1, straight, shielded