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Network cable - VS-M8MS-IP20/93B-1,0 - 1402453

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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 RJ45 plug/IP20, length: 1.0 m, suitable for PROFINET and EtherCAT

Ethernet

Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 616102

Technical data

Dimensions

Length of cable	1 m
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Ambient conditions

Degree of protection	IP20 (RJ45 connector)
	IP67 (M8 connectors)

General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Signal type/category	Ethernet, 100 Mbps
	PROFINET, 100 Mbps
	EtherCAT®, 100 Mbps
Standards/regulations	M8 connector IEC 61076-2-104
Degree of pollution	3

Characteristics head 1

Head type	Plug straight M8 / IP67
No. of positions (pin connector pattern)	4 (4)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)

Network cable - VS-M8MS-IP20/93B-1,0 - 1402453

Technical data

Characteristics head 1

	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	CuZn (nickel-plated) (Screw connection)
Shielded	yes
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 RJ45 / IP20
No. of positions (pin connector pattern)	4 (8)
Color	gray
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	PA (Housing)
Shielded	yes
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-10 °C ... 60 °C

Standards and Regulations

Standard designation	M8 connector
Standards/regulations	IEC 61076-2-104

Cable

Cable type	PROFINET PVC stranded CAT5
Cable type (abbreviation)	93B
UL AWM style	21694
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
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	1.55 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

Network cable - VS-M8MS-IP20/93B-1,0 - 1402453

Technical data

Cable

Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
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)
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Signal speed	0.66 c
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m (At 10 MHz)
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

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

ETIM

ETIM 4.0	EC002599
ETIM 5.0	EC002599

UNSPSC

UNSPSC 6.01	26121609
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Network cable - VS-M8MS-IP20/93B-1,0 - 1402453

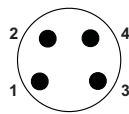
Classifications

UNSPSC

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

Drawings

Schematic diagram



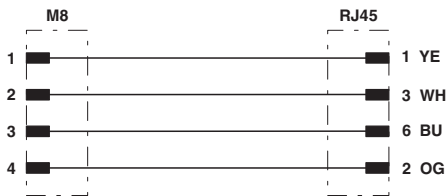
Pin assignment M8 plug, 4-pos., view male side

Cable cross section



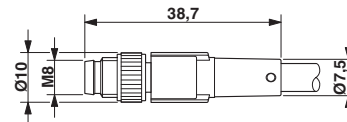
PROFINET PVC stranded CAT5 [93B]

Circuit diagram



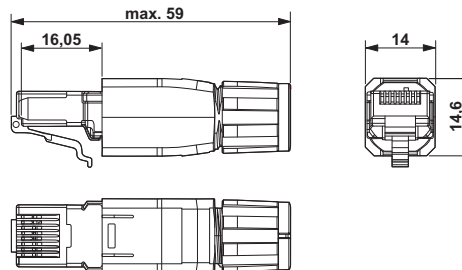
Contact assignment of the M8 and RJ45 plug

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



RJ45 connector, IP20

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