

Cable - VS-M12MSD-RJ45-933-B/ 0,5 - 1657229


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Assembled PROFINET cable, type B, CAT5e, shielded, star quad, AWG 22 stranded (7-wire), RAL 6018 (yellow-green), M12, 4 pos., D-coded on RJ45 connector, length: 0.5 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 100465
GTIN	4046356100465

Technical data

Mechanical characteristics

Number of positions	4
Shielded	yes
Insertion/withdrawal cycles	≥ 100
Cable diameter	6.50 mm
Cable structure	1x4xAWG22/7; SF-UTP
Length of cable	0.5 m
Degree of protection	IP67/IP20
Note	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 10.1 Cord Sets for Balanced Cabling

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-5 °C ... 50 °C (cable, flexible installation)
	Plug / socket
Degree of protection	IP20
	IP67

Material data

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Material data

Housing material	TPU/PA
Outer sheath, material	PVC
External sheath, color	green-yellow RAL 6018

Electrical characteristics

Rated voltage (III/3)	50 V
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Line characteristics

Cable type	PROFINET PVC stranded CAT5
Cable abbreviation	2YY(ST)CY
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	1.55 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
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)
	76 dB (at 4 MHz)
	70 dB (at 10 MHz)
	65 dB (at 16 MHz)
	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)
Wave attenuation	2.1 dB (with 1 MHz)
	4 dB (at 4 MHz)
	6.3 dB (at 10 MHz)
	8 dB (at 16 MHz)
	9 dB (at 20 MHz)
	11.4 dB (at 31.25 MHz)
	16.5 dB (at 62.5 MHz)
	21.3 dB (at 100 MHz)
Signal speed	0.66 c
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)

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Line characteristics

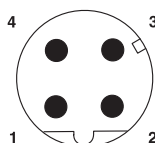
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor 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
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)

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Schematic diagram



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

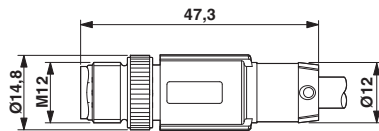
Cable cross section



PROFINET PVC stranded CAT5 [93B]

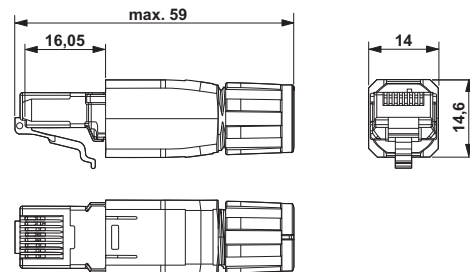
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Dimensional drawing



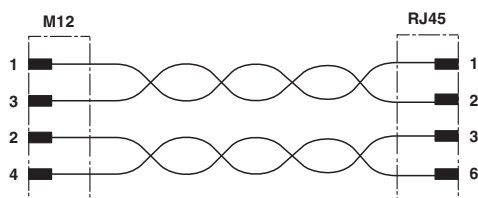
Plug M12x1, straight for bus cables and 12-17-pos.

Dimensional drawing

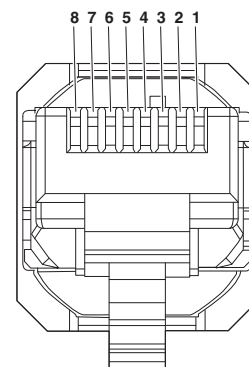


RJ45 connector, IP20

Circuit diagram



Schematic diagram



Connector pin assignment plug RJ45

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