

Network cable - VS-M12MS-IP20-93B-LI/3,0 - 1403496


Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Network cable, Ethernet CAT5 (1 Gbps), 4-position, PVC, green RAL 6018, Plug straight M12, on Plug straight RJ45, cable length: 3 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 656160
GTIN	4046356656160

Technical data

Mechanical characteristics

Number of positions	4
Shielded	yes
Insertion/withdrawal cycles	≥ 100
Cable diameter	6.50 mm
Cable outlet	straight
Cable structure	1x4xAWG22/7; SF/TQ
Length of cable	3 m
No. of cable outlets	1

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 50 °C (cable, flexible installation)
Degree of protection	IP65 (M12 connector)
	IP20 (RJ45 connector)

Material data

Flammability rating according to UL 94	V0
Outer sheath, material	PVC
External sheath, color	green RAL 6018

Network cable - VS-M12MS-IP20-93B-LI/3,0 - 1403496

Technical data

Electrical characteristics

Transmission characteristics (category)	CAT5 (IEC 11801:2002)
---	-----------------------

Standards and Regulations

Flammability rating according to UL 94	V0
--	----

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)
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.)

Network cable - VS-M12MS-IP20-93B-LI/3,0 - 1403496

Technical data

Line characteristics

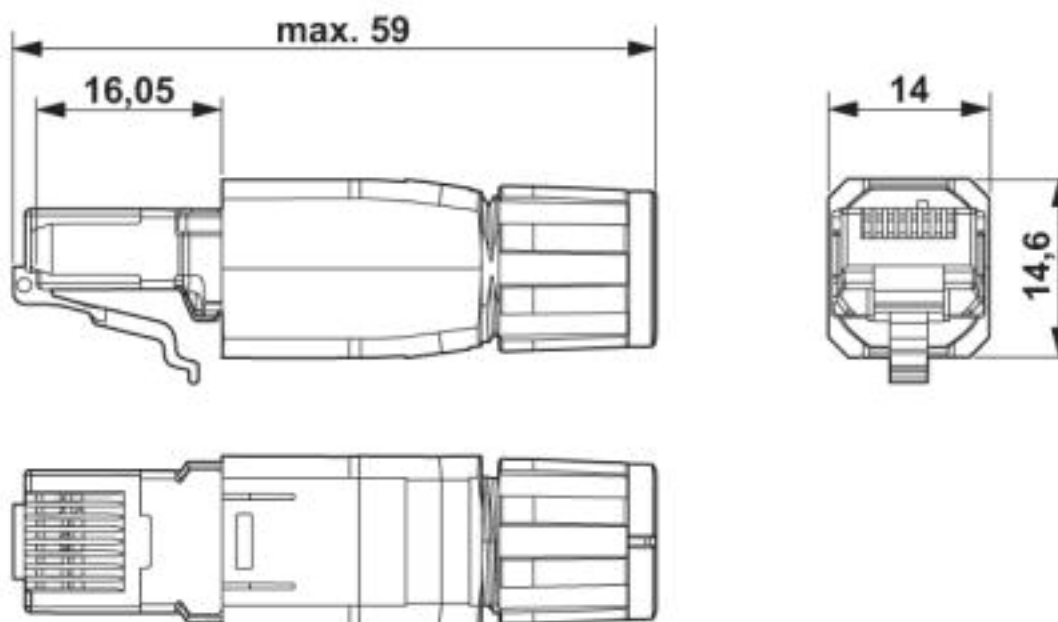
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Cable weight	67 kg/km
Minimum bending radius, fixed installation	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: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

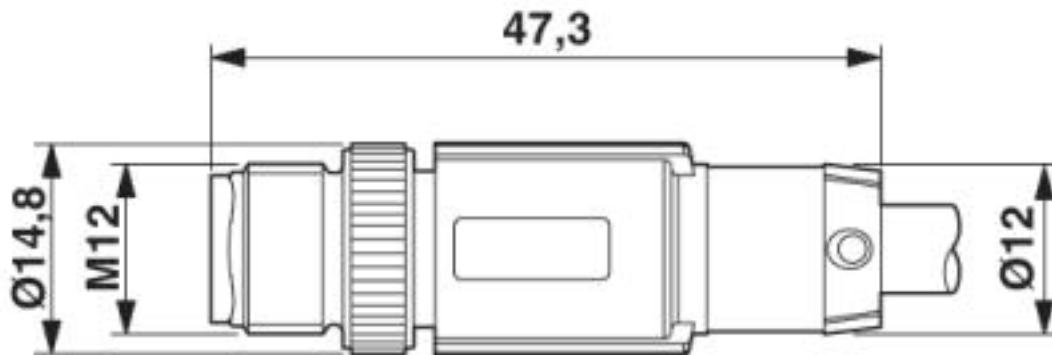
Dimensional drawing



RJ45 connector, IP20

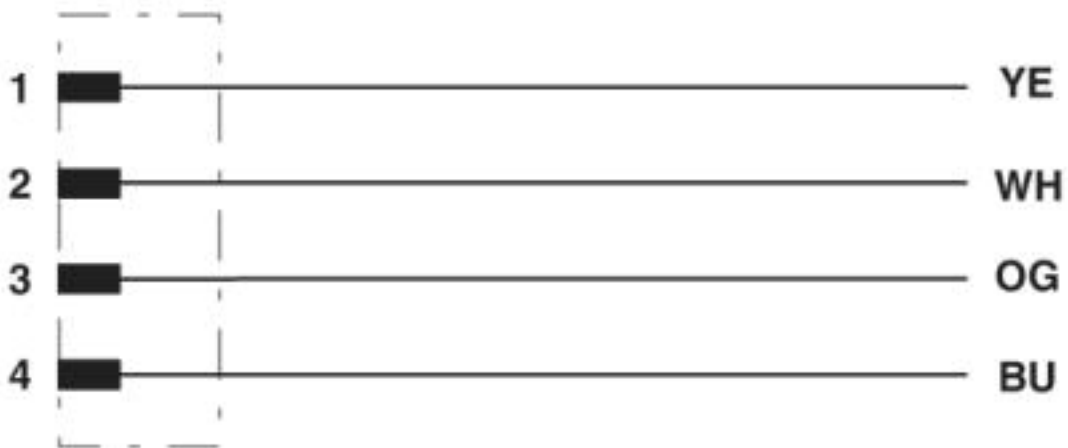
Network cable - VS-M12MS-IP20-93B-LI/3,0 - 1403496

Dimensional drawing



Plug, M12 x 1, straight, shielded

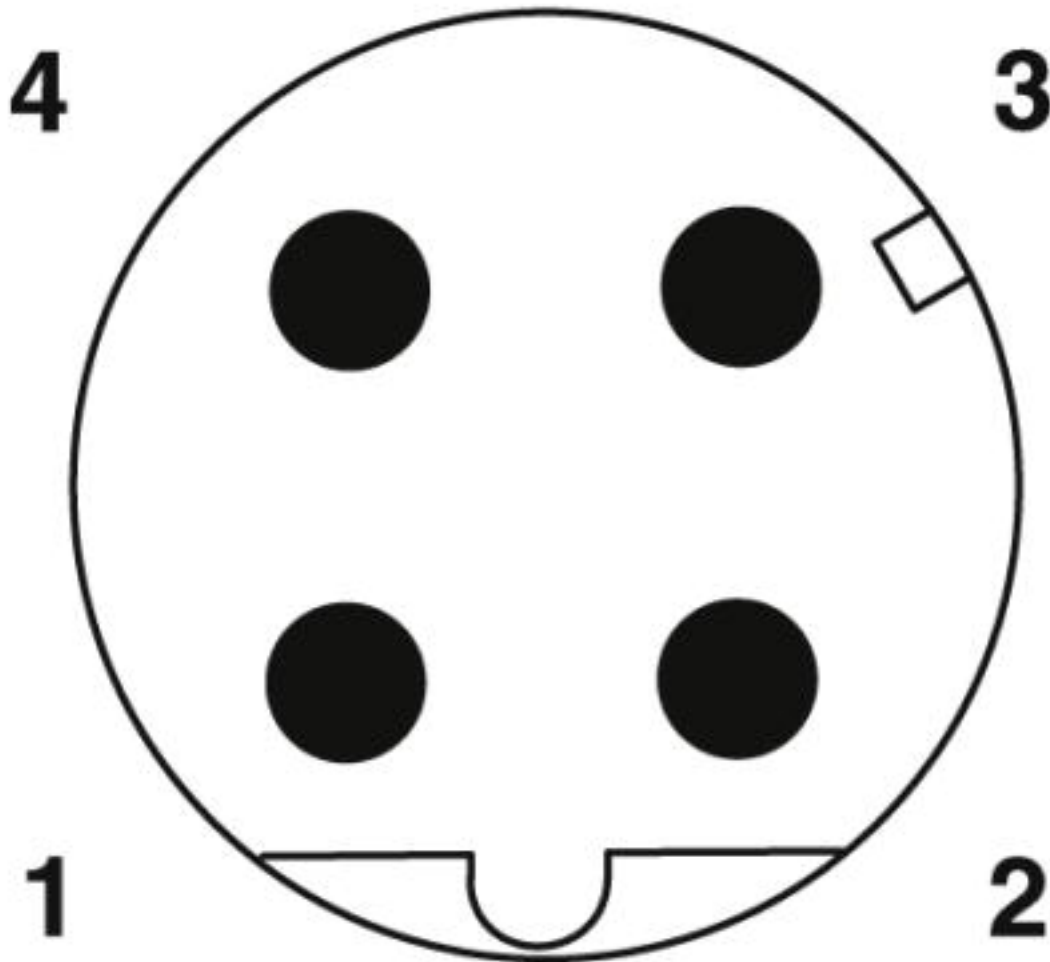
Circuit diagram



Contact assignment of the M12 connector

Network cable - VS-M12MS-IP20-93B-LI/3,0 - 1403496

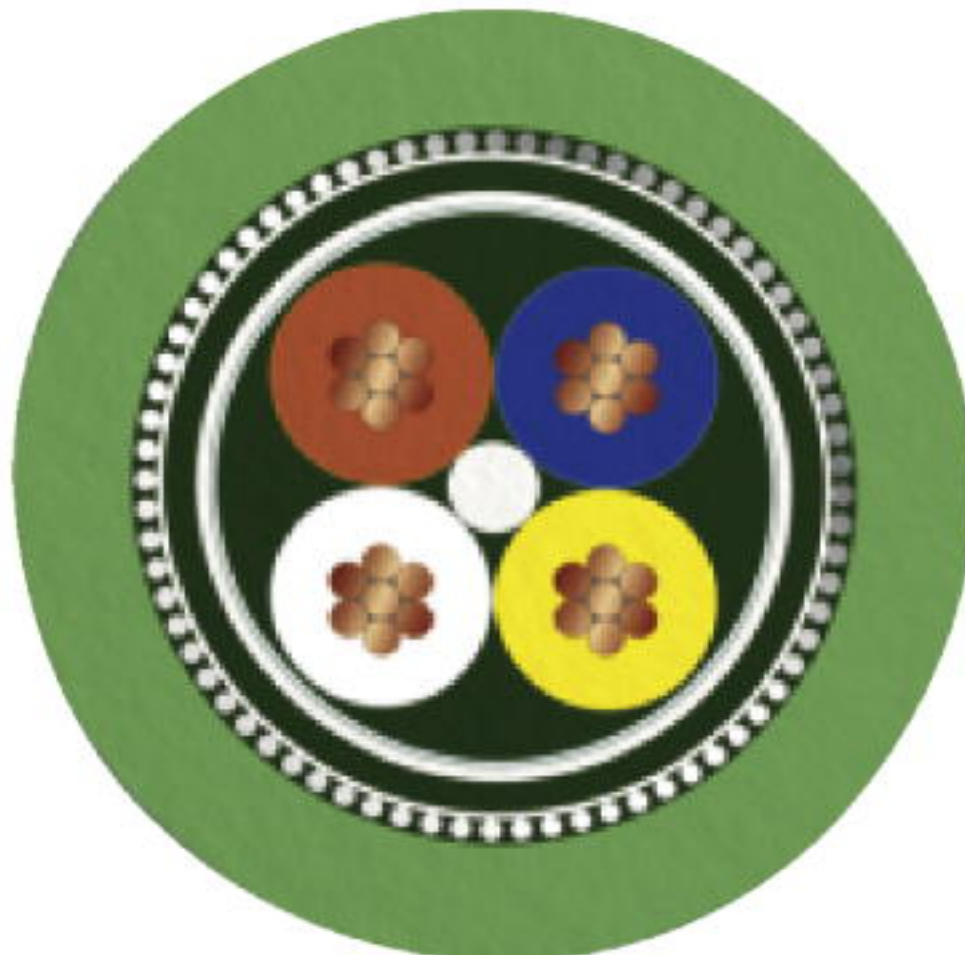
Schematic diagram



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

Network cable - VS-M12MS-IP20-93B-LI/3,0 - 1403496

Cable cross section



PROFINET PVC stranded CAT5 [93B]

Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>