

VS-M12MS-IP20-93B-LI/2,0 - Network cable



1416134

<https://www.phoenixcontact.com/us/products/1416134>

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 documentation. Our general terms of use for downloads are valid.



Assembled PROFINET cable, CAT5e, shielded, star quad, AWG 22 stranded (7-wire), RAL 6018 (yellow-green), M12 plug on RJ45 plug/IP20, line, length 2 m

Commercial data

Item number	1416134
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	BF1CJI
Catalog page	Page 307 (PC-2011)
GTIN	4046356474054
Weight per piece (including packing)	169.1 g
Weight per piece (excluding packing)	168.5 g
Country of origin	PL

VS-M12MS-IP20-93B-LI/2,0 - Network cable



1416134

<https://www.phoenixcontact.com/us/products/1416134>

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	PROFINET
Number of positions	4
No. of cable outlets	1
Shielded	yes

Insulation characteristics

Degree of pollution	3
---------------------	---

Interfaces

Bus system	PROFINET
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	------------

Material specifications

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

Connector

Connection 1

Type	Plug straight M12
------	-------------------

Connection 2

Type	Plug straight RJ45
------	--------------------

Cable/line

Cable length	2 m
--------------	-----

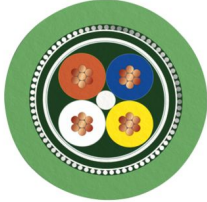
PROFINET PVC stranded CAT5 [93B]

VS-M12MS-IP20-93B-LI/2,0 - Network cable



1416134

<https://www.phoenixcontact.com/us/products/1416134>

Dimensional drawing	
Cable weight	67 kg/km
UL AWM Style	21694
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
Signal runtime	5.3 ns/m
Signal speed	0.66 c
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm ²
Wire diameter incl. insulation	1.55 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 0.90 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	46 mm
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)

VS-M12MS-IP20-93B-LI/2,0 - Network cable



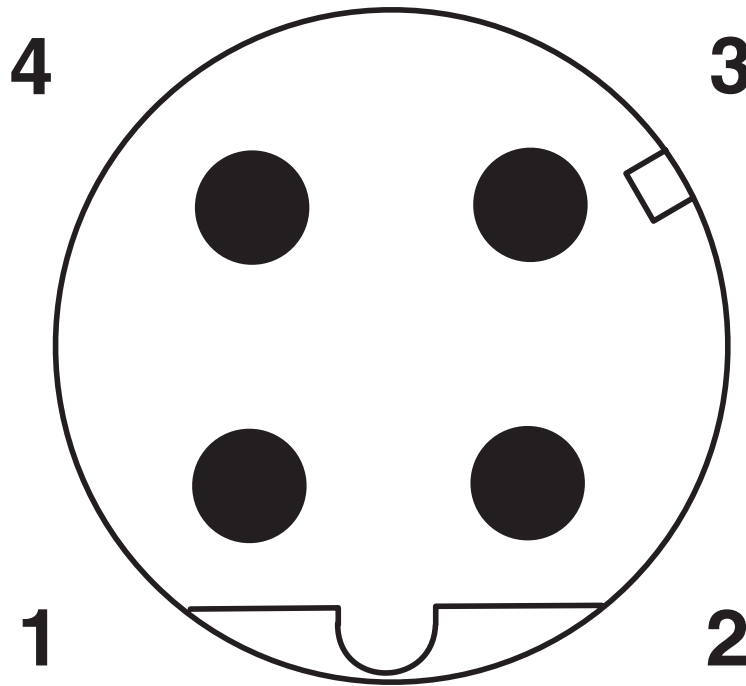
1416134

<https://www.phoenixcontact.com/us/products/1416134>

	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)
Shield 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)
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

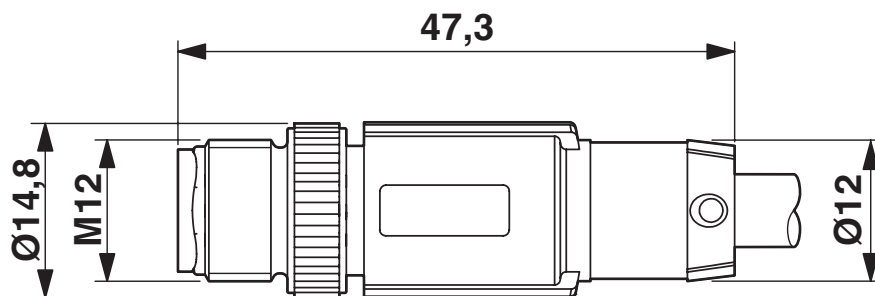
Drawings

Schematic diagram



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

Dimensional drawing



Plug, M12 x 1, straight, shielded

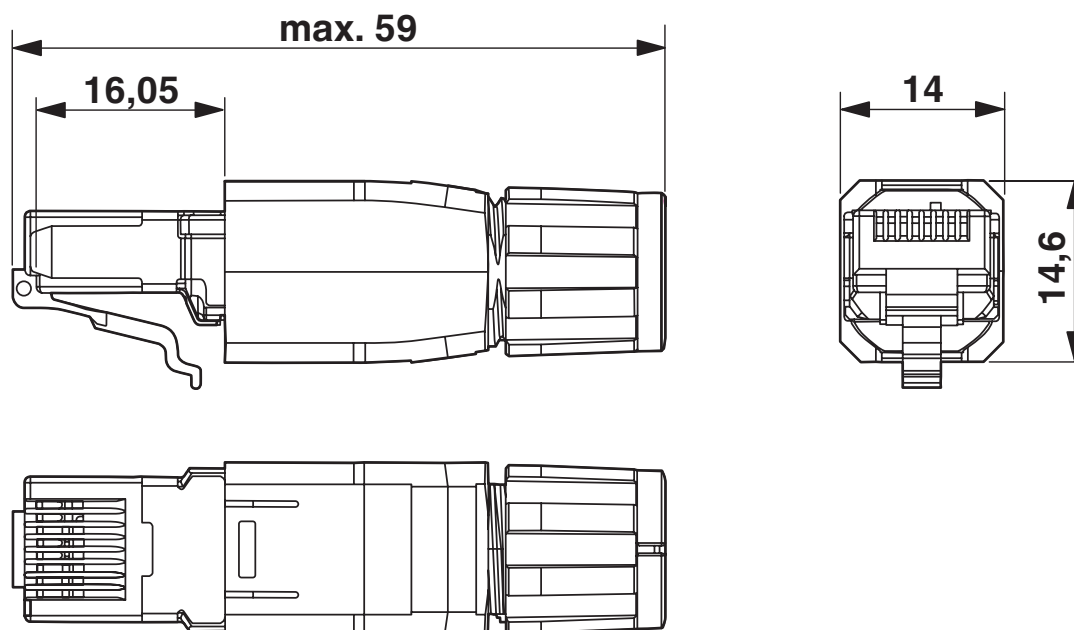
VS-M12MS-IP20-93B-LI/2,0 - Network cable

1416134

<https://www.phoenixcontact.com/us/products/1416134>

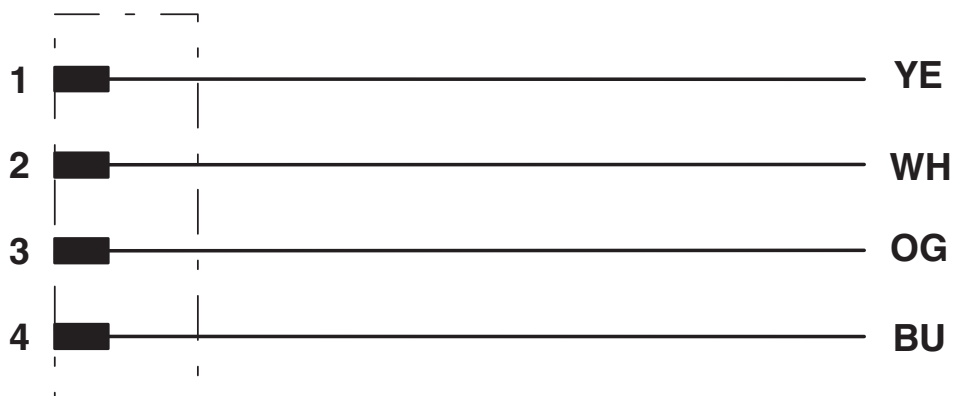


Dimensional drawing



RJ45 connector, IP20

Circuit diagram



VS-M12MS-IP20-93B-LI/2,0 - Network cable



1416134

<https://www.phoenixcontact.com/us/products/1416134>

Classifications

ECLASS

ECLASS-11.0	27060307
ECLASS-13.0	27060307

VS-M12MS-IP20-93B-LI/2,0 - Network cable



1416134
<https://www.phoenixcontact.com/us/products/1416134>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com