

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

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.



Network cable, Ethernet CAT5 (1 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: A / IP67, on Plug straight M12, coding: A / IP67, cable length: 1 m

## Commercial data

Item number	1407434
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	AF1CMI
GTIN	4046356775564
Weight per piece (including packing)	86.2 g
Weight per piece (excluding packing)	63.3 g
Customs tariff number	85444210
Country of origin	PL

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

## Technical data

### Notes

General	Further products with variable cable type and variable cable length can be found in the accessories section
---------	---

### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	Ethernet
Number of positions	8
Shielded	yes

### Interfaces

Signal type/category	Ethernet CAT5 (IEC 11801), 1 Gbps
----------------------	-----------------------------------

### Electrical properties

Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	2 A
Transmission medium	Copper
Transmission speed	1 Gbps

### Connector

Connection 1	
Dimensional drawing	
	Pin assignment M12 plug, 8-pos., A-coded, view plug side
Type	M12 Plug, angled, 8-position, shielded (Advanced Shielding Technology), Keying: A
Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Ethernet CAT5, 1 bps
Insertion/withdrawal cycles	$\geq 100$
Insulation resistance	$\geq 100 \Omega$
Overshoot category	II
Degree of pollution	3
Tightening torque	0.4 Nm (M12 connector)
Material Contact	CuZn

# NBC-M12MS/ 1,0-94B/M12MS - Network cable

1407434

<https://www.phoenixcontact.com/us/products/1407434>



Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101

## Connection 2

Dimensional drawing	
	Pin assignment M12 plug, 8-pos., A-coded, view plug side
Type	M12 Plug, angled, 8-position, shielded (Advanced Shielding Technology), Keying: A
Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Ethernet CAT5, 1 bps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 Ω
Overshoot category	II
Degree of pollution	3
Tightening torque	0.4 Nm (M12 connector)
Material Contact	CuZn
Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101

## Cable/line

Cable length	1 m
Ethernet flexible CAT5, 4-pair [94B]	

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

Dimensional drawing



Cable weight	47 kg/km
UL AWM Style	20963 (80°C/30 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet flexible CAT5, 4-pair [94B]
Conductor structure	4x2xAWG26/7, SF/UTP
Signal runtime	5.3 ns/m
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	4x 2x 0.14 mm <sup>2</sup>
Wire diameter incl. insulation	0.96 mm
External cable diameter	6.40 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Thickness, outer sheath	1.05 mm
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Optical shield covering	70 %
Insulation resistance	≥ 5 GΩ*km
Coupling resistance	≤ 100.00 mΩ/m (at 10 MHz)
Loop resistance	≤ 290.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Cable capacity	48 nF/km (at 1 kHz)
Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	26 mm
Smallest bending radius, movable installation	52 mm
Tensile strength	≤ 100 N
	71.3 dB (with 1 MHz)

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

Near end crosstalk attenuation (NEXT)	62.3 dB (at 4 MHz) 56.3 dB (at 10 MHz) 53.2 dB (at 16 MHz) 51.8 dB (at 20 MHz) 48.9 dB (at 31.25 MHz) 44.4 dB (at 62.5 MHz) 41.3 dB (at 100 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	62.3 dB (with 1 MHz) 53.3 dB (at 4 MHz) 47.3 dB (at 10 MHz) 44.2 dB (at 16 MHz) 42.8 dB (at 20 MHz) 39.9 dB (at 31.25 MHz) 35.4 dB (at 62.5 MHz) 32.3 dB (at 100 MHz)
Return attenuation (RL)	23 dB (at 4 MHz) 24.1 dB (at 8 MHz) 25 dB (at 10 MHz) 25 dB (at 16 MHz) 25 dB (at 20 MHz) 23.6 dB (at 31.25 MHz) 21.5 dB (at 62.5 MHz) 20.1 dB (at 100 MHz)
Shield attenuation	3.2 dB (with 1 MHz) 6 dB (at 4 MHz) 9.5 dB (at 10 MHz) 12.1 dB (at 16 MHz) 13.6 dB (at 20 MHz) 17.1 dB (at 31.25 MHz) 24.8 dB (at 62.5 MHz) 32 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
Resistance to oil	in accordance with EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (installation)	-20 °C ... 80 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 80 °C

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

# NBC-M12MS/ 1,0-94B/M12MS - Network cable

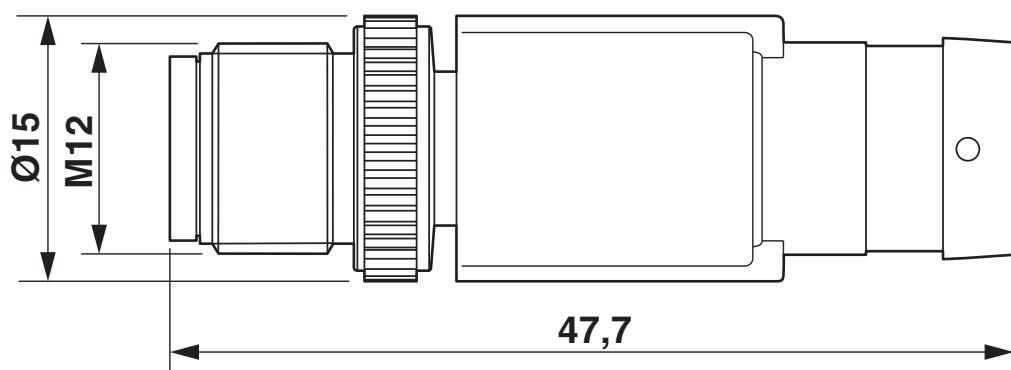


1407434

<https://www.phoenixcontact.com/us/products/1407434>

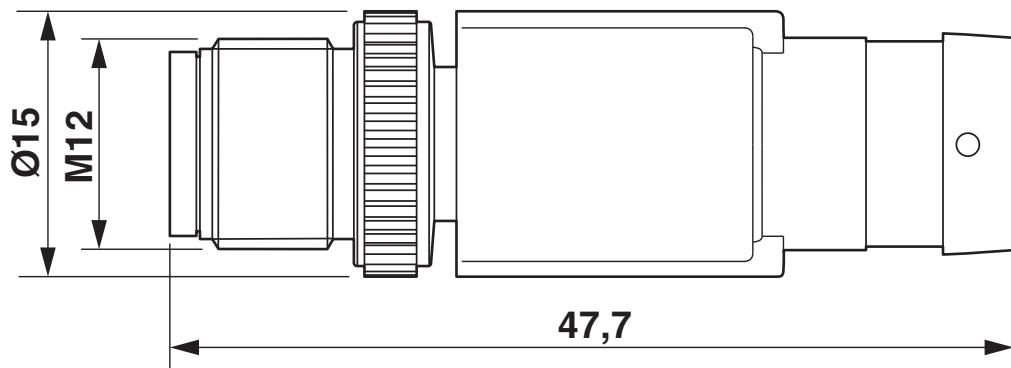
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Plug, M12 x 1, straight, shielded

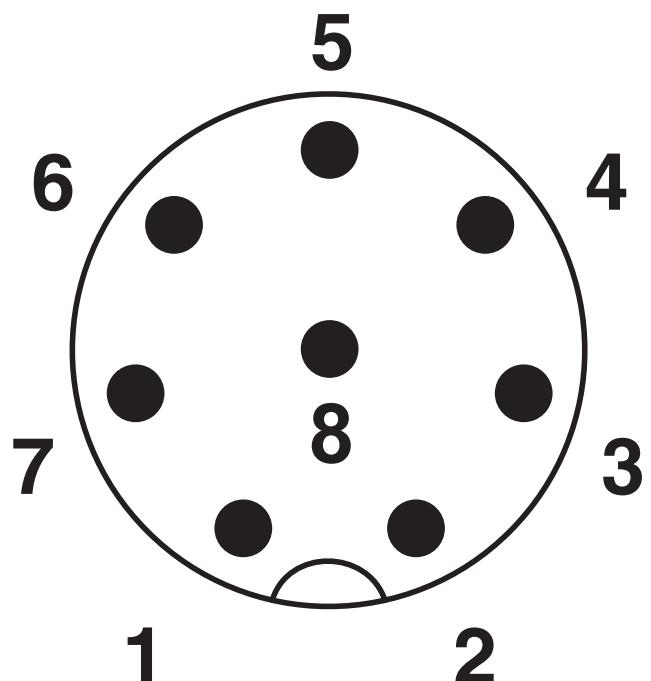
# NBC-M12MS/ 1,0-94B/M12MS - Network cable

1407434

<https://www.phoenixcontact.com/us/products/1407434>



Schematic diagram



Pin assignment M12 plug, 8-pos., A-coded, view plug side

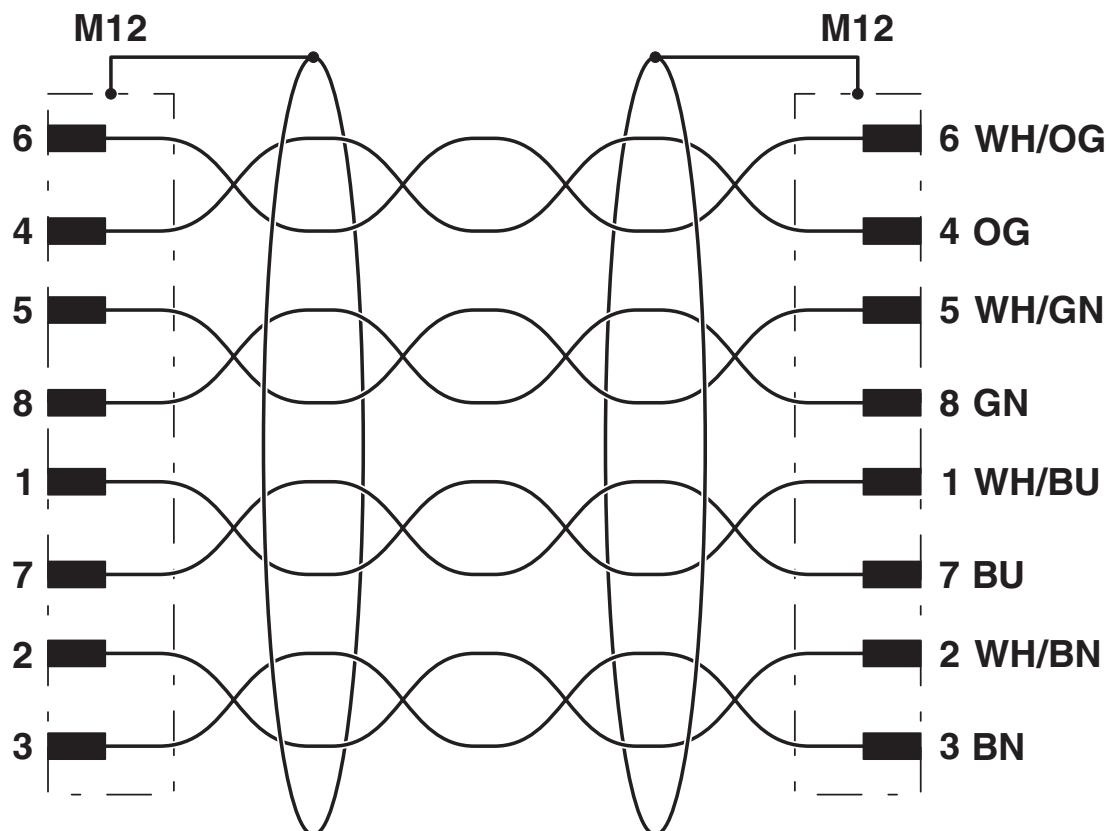
# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

Circuit diagram



Contact assignment of the M12 plugs

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407434>



**UL Listed**

Approval ID: FILE E 335024

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	30 V	1.5 A	-	-



**cUL Listed**

Approval ID: FILE E 335024

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	30 V	1.5 A	-	-



**EAC-RoHS**

Approval ID: RU D-DE.HB35.B.00387

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 9.0	EC001855
----------	----------

### UNSPSC

UNSPSC 21.0	26121600
-------------	----------

# NBC-M12MS/ 1,0-94B/M12MS - Network cable



1407434

<https://www.phoenixcontact.com/us/products/1407434>

## 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%
-------------------------------------	----------------------------

### EF3.0 Climate Change

CO2e kg	1.726 kg CO2e
---------	---------------

Phoenix Contact 2025 © - 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](mailto:info@phoenixcon.com)