

NBC-M12MS/ 2,0-94B US - Network cable



1406121

<https://www.phoenixcontact.com/us/products/1406121>

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, Plug straight M12, coding: A / IP67, on free cable end, cable length: 2 m

Commercial data

Item number	1406121
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF15
Product key	AF1IHB
GTIN	4046356799287
Weight per piece (including packing)	114 g
Weight per piece (excluding packing)	110.8 g
Customs tariff number	85444290
Country of origin	US

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard, U.S. cables
Sensor type	Ethernet
Number of positions	8
Shielded	yes
Coding	A

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5 (based on IEC 11801), 1 Gbps

Signaling

Status display	no
Status display present	no

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	2 A
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Connector

Connection 1

Type	Plug straight M12 / IP67
Coding type	A (Standard)
Material	CuZn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)
Degree of protection	IP67

Connection 2

Type	free cable end
------	----------------

Cable/line

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

Ethernet flexible CAT5, 4-pair [94B]

NBC-M12MS/ 2,0-94B US - Network cable



1406121

<https://www.phoenixcontact.com/us/products/1406121>

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 ²
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/ 2,0-94B US - Network cable



1406121

<https://www.phoenixcontact.com/us/products/1406121>

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)
Return attenuation (RL)	32.3 dB (at 100 MHz)
	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)
Shield attenuation	21.5 dB (at 62.5 MHz)
	20.1 dB (at 100 MHz)
	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)
Halogen-free	17.1 dB (at 31.25 MHz)
	24.8 dB (at 62.5 MHz)
	32 dB (at 100 MHz)
	according to IEC 60754-1
	according to IEC 60332-1-2
	in accordance with EN 60811-2-1
	-40 °C ... 80 °C (cable, fixed installation)
Flame resistance	-20 °C ... 80 °C (Cable, flexible installation)
	-20 °C ... 80 °C
Resistance to oil	
Ambient temperature (operation)	
Ambient temperature (installation)	

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP65/IP67

NBC-M12MS/ 2,0-94B US - Network cable



1406121

<https://www.phoenixcontact.com/us/products/1406121>

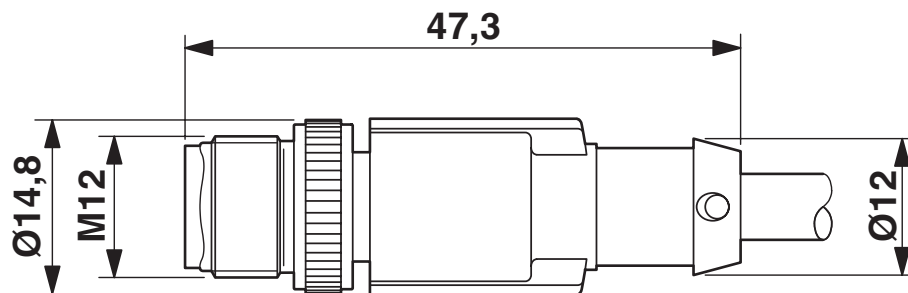
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (M12 connector)
---	----------------------------------

Standards and regulations

M12	
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

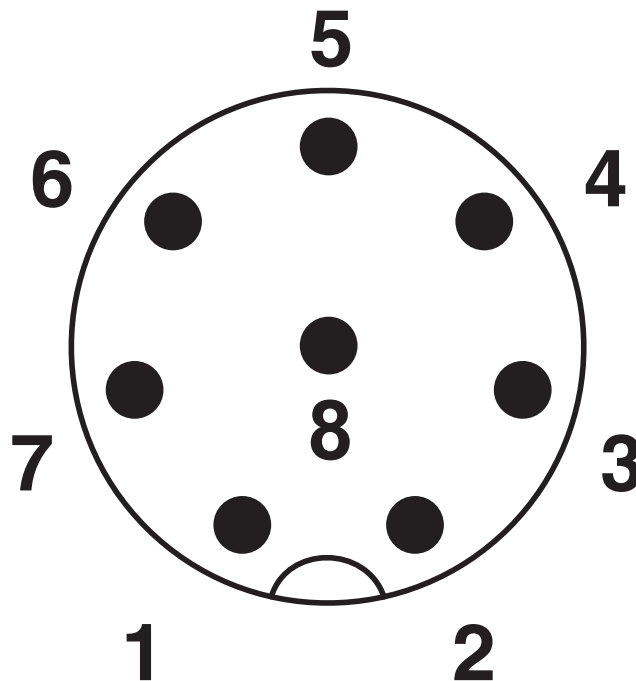
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram

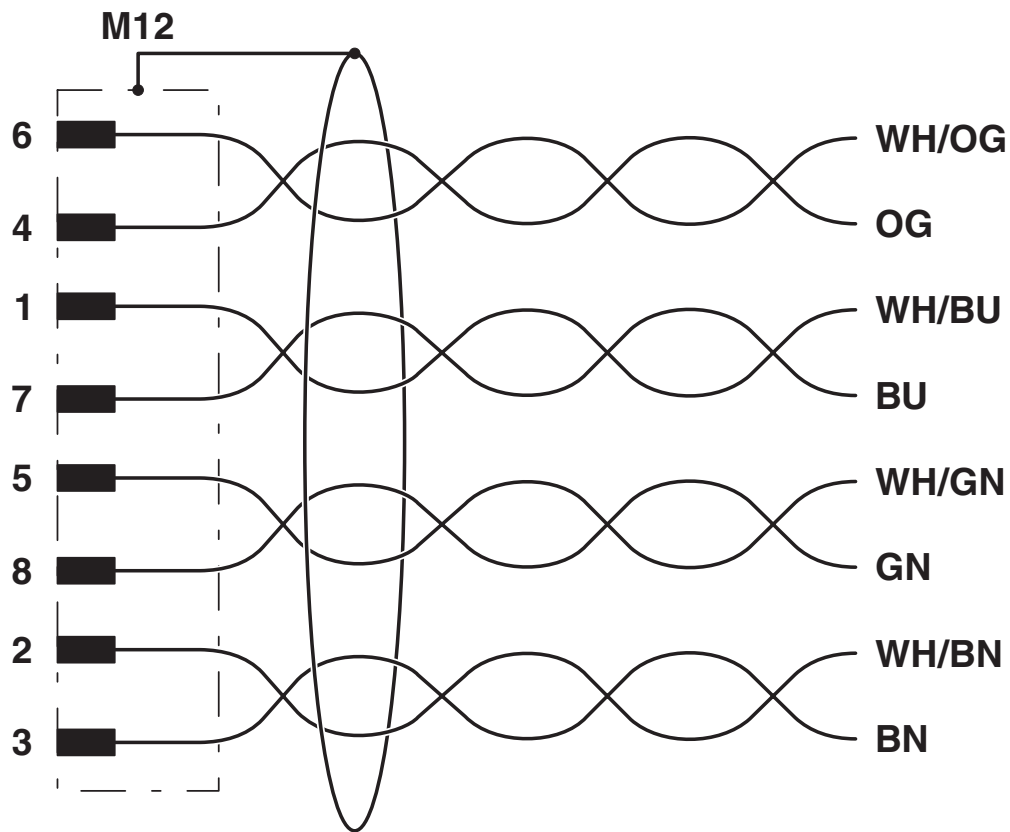


Pin assignment M12 plug, 8-pos., A-coded, view plug side

1406121

<https://www.phoenixcontact.com/us/products/1406121>

Circuit diagram



Contact assignment of the M12 plug

NBC-M12MS/ 2,0-94B US - Network cable



1406121

<https://www.phoenixcontact.com/us/products/1406121>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1406121>

	UL Recognized Approval ID: FILE E 335024			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	30 V	1.5 A	-	-

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

NBC-M12MS/ 2,0-94B US - Network cable



1406121

<https://www.phoenixcontact.com/us/products/1406121>

Classifications

ECLASS

ECLASS-13.0	27060307
-------------	----------

ETIM

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

UNSPSC

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

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	2.069 kg CO2e