

# NBC-M12MS/ 0,5-94B/M12MS US - Network cable



1408748

<https://www.phoenixcontact.com/in/products/1408748>

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Network cable, Ethernet CAT5 (1 Gbps), 8-position halogen-free, shielded, Plug straight M12, coding: A / IP67, on Plug straight M12, coding: A / IP67, cable length: 0.5 m

## Commercial Data

Item number	1408748
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to Order (non-returnable)
Sales Key	BF1
Product Key	BF1IHB
GTIN	4046356828581
Weight per Piece (including packing)	53.45 g
Weight per Piece (excluding packing)	53.45 g
Customs tariff number	85444210
Country of origin	US

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## Technical Data

### Product properties

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

### Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5 (on the basis of 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

### Material specifications

Color Handle area	black
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

### Connector

#### Connection 1

Type	Plug straight M12 / IP67
Coding type	A (Standard)
Degree of protection	IP67

#### Connection 2

Type	Plug straight M12 / IP67
Coding type	A (Standard)

### Cable/line

Cable length	0.5 m
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## Ethernet flexible CAT5, 4-pair [94B]

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	6.4 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 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength	≤ 100 N
	71.3 dB (with 1 MHz)

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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 loss (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)
Flame resistance	32 dB (at 100 MHz)
Resistance to oil	according to IEC 60754-1
Ambient temperature (operation)	according to IEC 60332-1-2
Ambient temperature (installation)	in accordance with EN 60811-2-1
	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)
	-20 °C ... 80 °C

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
	IP65/IP67

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Ambient temperature (operation)	-25 °C ... 85 °C (M12 connector)
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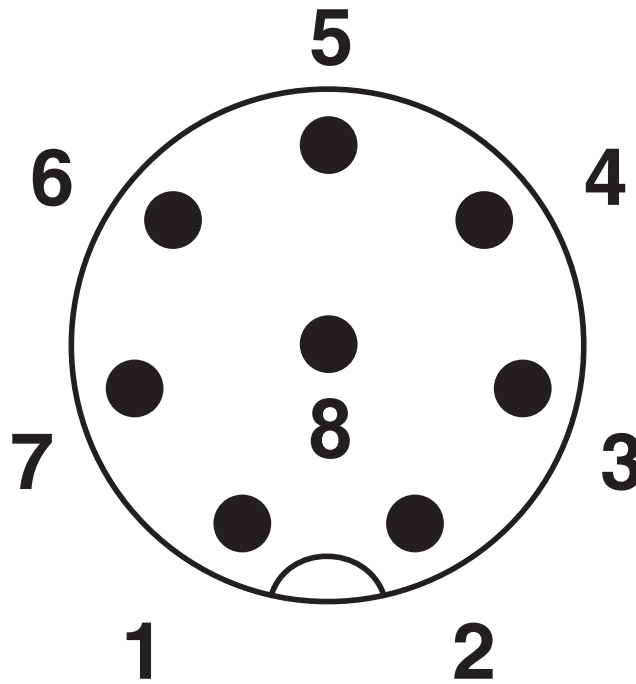
## Standards and regulations

M12

Standards/specifications	IEC 61076-2-101
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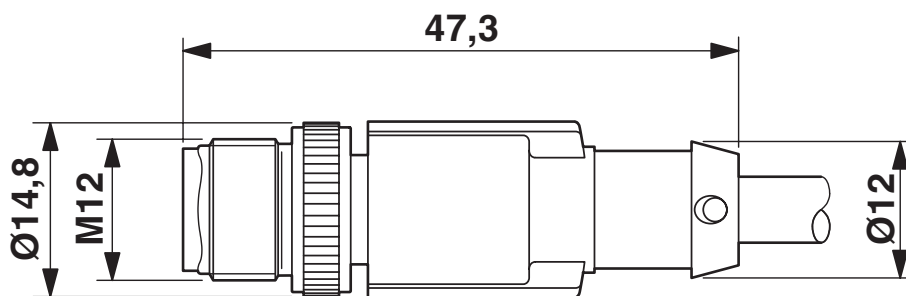
## Drawings

Schematic diagram



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

Dimensional drawing

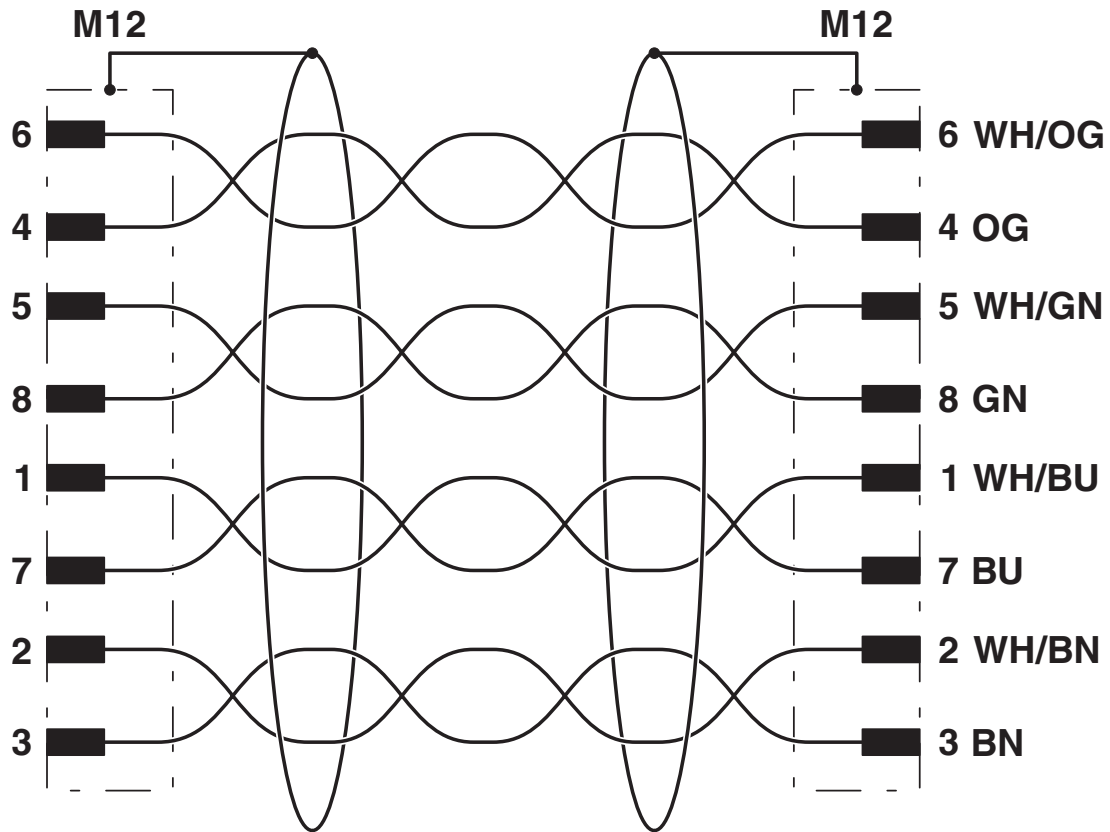


Plug, M12 x 1, straight, shielded

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Circuit diagram



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## Approvals



### UL Listed

Approval ID: FILE E 335024

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	30 V	1.5 A	-	-



### EAC

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



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## Classifications

### ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

### ETIM

ETIM 8.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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