

# NBC-M12MRD-M12MRD/93F/... - Network cable



1201760

<https://www.phoenixcontact.com/us/products/1201760>

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 CAT5e (100 Mbps), 4-position, TPE, highly flexible, turquoise, shielded, Plug angled M12, coding: D / IP67, on Plug angled M12, coding: D / IP67

## Commercial data

Item number	1201760
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF17
Product key	AF1IHC
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	US

1201760

<https://www.phoenixcontact.com/us/products/1201760>

## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard, U.S. cables
Number of positions	4
Shielded	yes
Coding	D

### Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5e, 100 Mbps

### Signaling

Status display	no
Status display present	no

### Electrical properties

Nominal voltage $U_N$	48 V AC
	60 V DC
	RJ45 30 V AC/57 V DC
Nominal current $I_N$	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Transmission speed	100 Mbps

### Connector

#### Connection 1

Type	Plug angled M12 / IP67
Coding type	D (Data)
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)
	FKM (Seal)
Degree of protection	IP67

#### Connection 2

Type	Plug angled M12 / IP67
Number of positions	4
Coding type	D (Data)
Handle color	black

# NBC-M12MRD-M12MRD/93F/... - Network cable




1201760

<https://www.phoenixcontact.com/us/products/1201760>

Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)
	FKM (Seal)
Degree of protection	IP67

## Cable/line

Highly flexible Ethernet CAT5e [93F]

Dimensional drawing	
UL AWM Style	2463 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	Highly flexible Ethernet CAT5e [93F]
Conductor structure	2x2xAWG24/7, SF/UTP
Conductor structure signal line	7x 0.20 mm (7x32)
AWG signal line	24
Conductor cross-section	2x 2x 0.2 mm <sup>2</sup>
Wire diameter incl. insulation	1.2 mm
External cable diameter	6.70 mm ±0.25 mm
Outer sheath, material	TPE
External sheath, color	turquoise
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	2 pairs to the core
Optical shield covering	75 %
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Cable impedance	100 Ω ±15 Ω (at 1 ... 100 MHz)
Nominal voltage, cable	600 V
Test voltage	2000 V
Dynamic load capacity (bending)	Max. bending cycles: 1000000, Bending radius: 10 x D, Traversing path: 0.23 m, Traversing rate: 1.5 m/s, Acceleration: 20.5 m/s <sup>2</sup>

# NBC-M12MRD-M12MRD/93F/... - Network cable



1201760

<https://www.phoenixcontact.com/us/products/1201760>

	Max. bending cycles: 20000000, Bending radius: 20 X D (126 cycles/min. at 20 °C)
Dynamic load capacity (torsion)	Torsion: 360 °/m (1 lb. load), Torsion cycles: 3000000, Torsional frequency: 71 cycles/min, Ambient temperature (operation): 20 °C
Near end crosstalk attenuation (NEXT)	50 dB (with 100 MHz (IEC 62153-4-9))
Return attenuation (RL)	20 dB (at 10 MHz (+6LOG))
	26 dB (at 20 MHz)
	26 dB (at 100 MHz (-5LOG))
Flame resistance	VW-1
Other resistance	Resistant to welding splashes (Abrasion and oil resistance)
	UV resistant (CMX outdoor)
Ambient temperature (operation)	-40 °C ... 80 °C (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP65
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

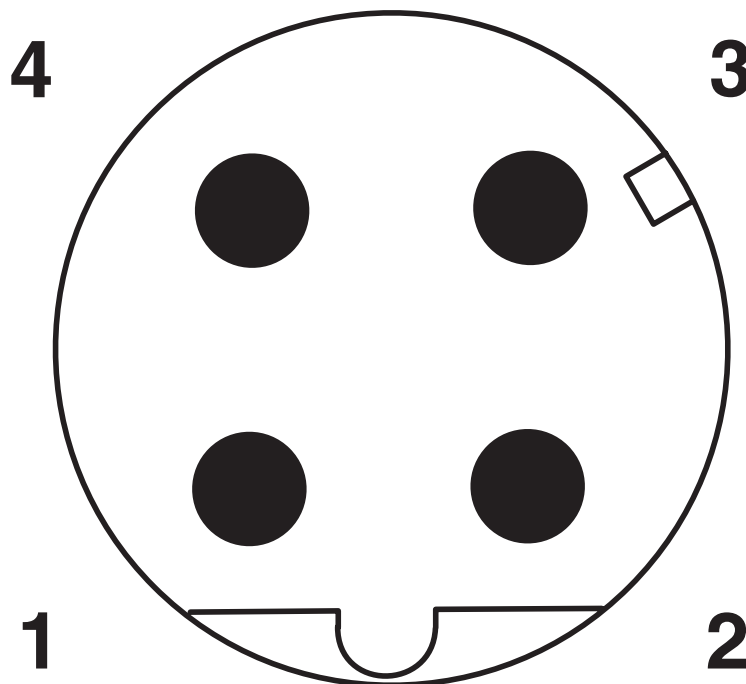
## Drawings

Dimensional drawing



M12 x 1 male plug, angled, shielded

Schematic diagram

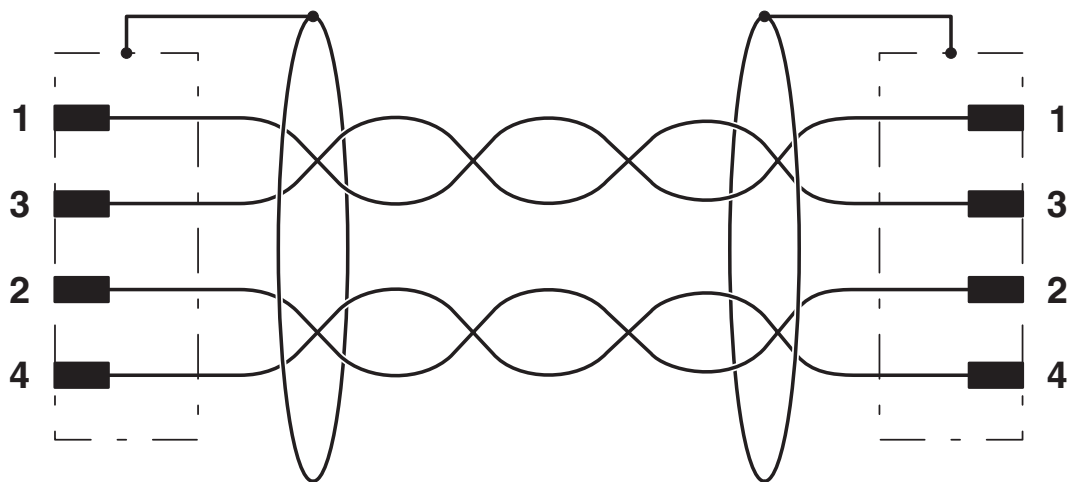


Pin assignment M12 male connector, 4-pos., D-coded, male side

1201760

<https://www.phoenixcontact.com/us/products/1201760>

Circuit diagram



Contact assignment of the M12 plugs

# NBC-M12MRD-M12MRD/93F/... - Network cable



1201760

<https://www.phoenixcontact.com/us/products/1201760>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1201760>

 <b>UL Listed</b> Approval ID: FILE E 335024				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	60 V	1.5 A	-	-

 <b>cUL Listed</b> Approval ID: File E335024				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	60 V	1.5 A	-	-

# NBC-M12MRD-M12MRD/93F/... - Network cable



1201760

<https://www.phoenixcontact.com/us/products/1201760>

## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

1201760

<https://www.phoenixcontact.com/us/products/1201760>

## 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.)	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof(CAS: 26040-51-7)
-------------------------------------	---

Phoenix Contact 2026 © - 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)