

# NBC-M12MRD/ 2,0-93F/R4AC - Network cable



1192131

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Network cable, Ethernet CAT5e (100 Mbps), 4-position, shielded, Plug angled M12, coding: D / IP67, on Plug straight RJ45, coding: D / IP20, cable length: 2 m

## Commercial data

Item number	1192131
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF15
Product key	BF1IHC
GTIN	4063151343699
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	US

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## Technical data

### Product properties

Product type	Data cable preassembled
Sensor type	Ethernet
Number of positions	4
Application	Standard, U.S. cables
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 ()
Nominal current $I_N$	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
	1.5 A (RJ45)
Transmission medium	Copper

### Connector

#### Connection 1

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

#### Connection 2

Type	Plug straight RJ45 / IP20
Number of positions	4
Coding type	D (Data)
	CuSn (Contact)

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Material	Ni/Au (Contact surface)
	PA (Contact carriers)
	PA (Housing)
Degree of protection	IP20

## Cable/line

Cable length	2 m
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### 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	6.7 mm ±0.25 mm
Outer sheath, material	TPE
External sheath, color	Teal
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
Max. bending cycles	1000000 20000000 (126 cycles/min. @ 20°C)
Torsion force	360 °/m (1 lb. load)
Torsion cycles	3000000
Torsional frequency	71 (cycles/min)

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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)	-25 °C ... 85 °C (M12 connector)

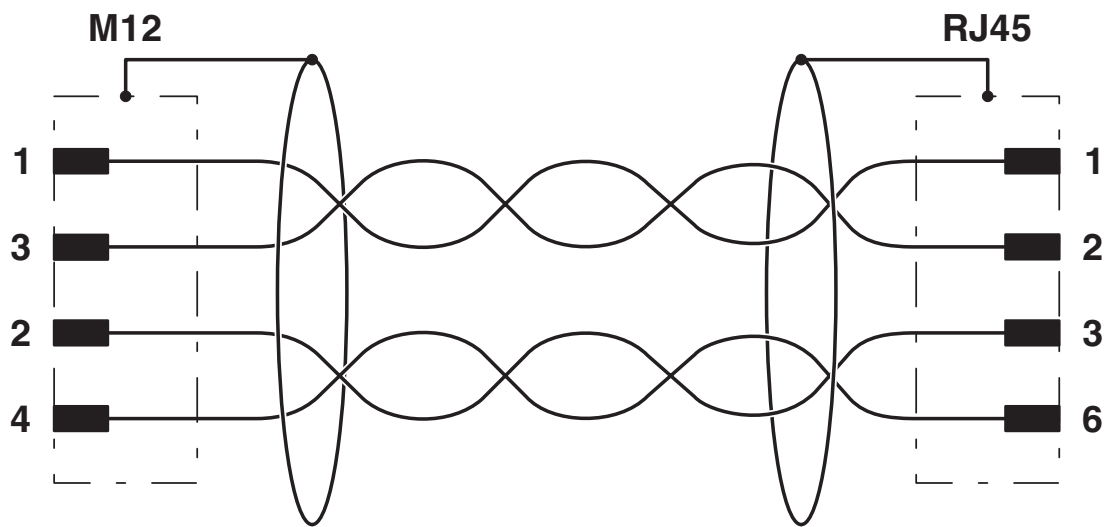
## Standards and regulations

### M12

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

Drawings

Circuit diagram



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Schematic diagram



Connector pin assignment plug RJ45

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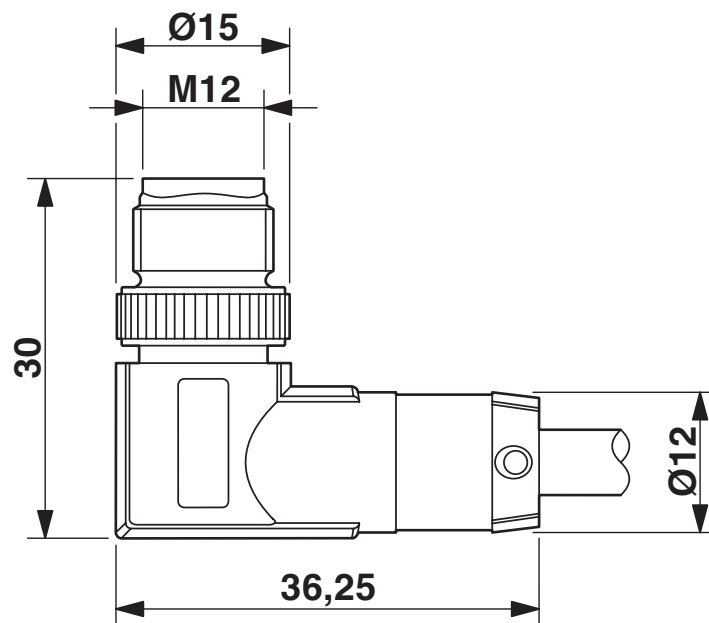
<https://www.phoenixcontact.com/us/products/1192131>

Schematic diagram



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

Dimensional drawing



M12 x 1 male plug, angled, shielded

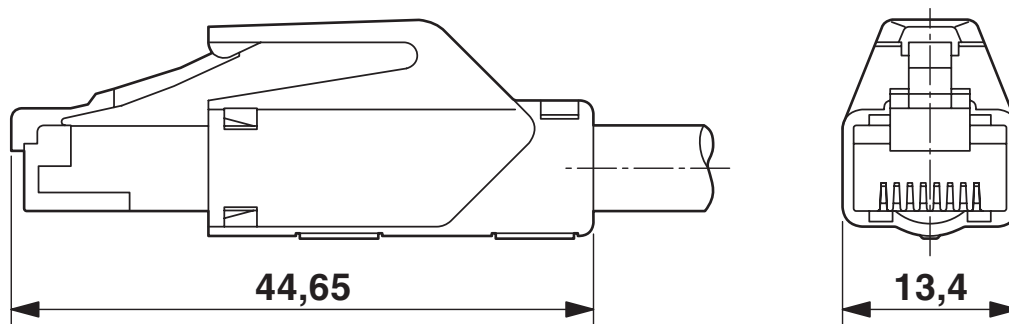
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Dimensional drawing



RJ45 connector, IP20

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## Approvals

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 <b>UL Listed</b> Approval ID: File E335024				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	60 V	0.5 A	-	-

 <b>cUL Listed</b> Approval ID: File E335024				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	60 V	0.5 A	-	-

<b>cULus Listed</b>				
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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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