

# NBC-M12MRD/ 1,0-93P/R4AQ - Network cable



1417981

<https://www.phoenixcontact.com/us/products/1417981>

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Network cable, Ethernet CAT5 CAT5 (100 Mbps), 4-position, PVC, water blue RAL 5021, Plug angled M12, coding: D / IP67, on Plug straight RJ45 Push Pull / IP67, cable length: 1 m

As shown in the illustration but with an angled plug

## Commercial data

Item number	1417981
Packing unit	1 pc
Minimum order quantity	25 pc
Product key	AF1CJI
GTIN	4055626200477
Weight per piece (including packing)	73.23 g
Weight per piece (excluding packing)	73.23 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Sensor type	Ethernet
Number of positions	4
Number of slots	1
Shielded	yes
Coding	D

### Insulation characteristics

Degree of pollution	3
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### Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5 (IEC 11801:2002)

### Signaling

Status display	no
Status display present	no

### Electrical properties

Nominal voltage $U_N$	48 V AC
	60 V DC
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

### Material specifications

Flammability rating according to UL 94	V2
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### Connector

#### Connection 1

Type	Plug angled M12 / IP67
Number of positions	4
Coding type	D (Data)
Handle color	black
Material	CuZn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Tightening torque	0.4 Nm
Degree of protection	IP67

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## Connection 2

Type	Plug straight RJ45 Push Pull / IP67
Number of positions	4 (8)
Locking type	Push Pull
Handle color	black
Material	CuSn (Contact) Ni/Au (Contact surface) PC (Contact carrier) PA GF (Housing)
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP67

## Cable/line

Cable length	1 m
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## Ethernet [93P]

UL AWM Style	2654 (90 °C / 300 V)
Number of positions	4
Shielded	yes
Cable type	Ethernet [93P]
Conductor structure	2x2xAWG26/7, SF/UTP
Signal runtime	0.4 ns/m
Signal speed	0.6 c
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross-section	2x 2x 0.14 mm <sup>2</sup>
Wire diameter incl. insulation	0.98 mm ±0.05 mm
External cable diameter	6.40 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	white/orange-orange, white/green-green
Thickness, outer sheath	≥ 1.00 mm
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined polyester foil
Overall twist	Two pairs with two fillers to the core
Optical shield covering	85 %
Max. conductor resistance	≤ 140 Ω/km
Insulation resistance	> 5 GΩ*km
Wave impedance	100 Ω ±5 % (at 100 MHz)
Working capacitance	< 56 nF
Nominal voltage, cable	≤ 300 V AC ≤ 450 V DC

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Test voltage Core/Core	2500 V DC
Smallest bending radius, movable installation	25 mm
Tensile strength	≤ 40 N
Shield attenuation	32.00 dB (up to 100 MHz)
Flame resistance	According to VW-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Resistant to cleaning agents/disinfectants (According to ECOLAB F&E/P3-E No. 40-1)
Ambient temperature (operation)	-40 °C ... 90 °C
Ambient temperature (installation)	0 °C ... 50 °C

## Standards and regulations

M12

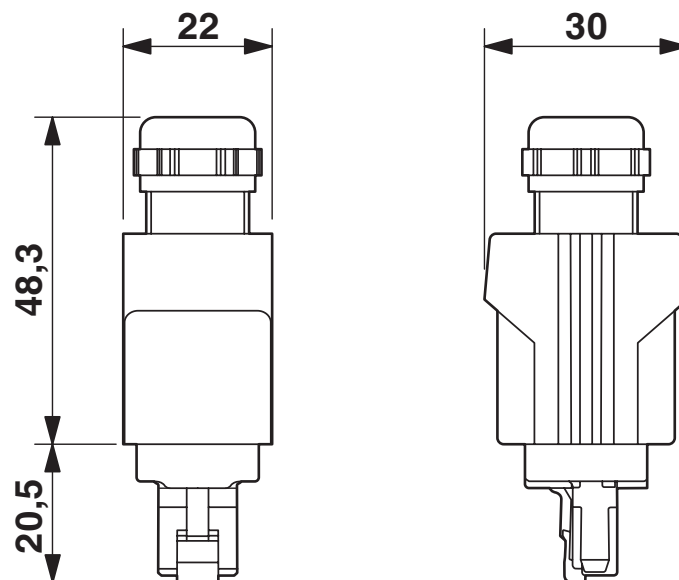
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

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## Drawings

Dimensional drawing



RJ45 Push-Pull connector, IP67

Schematic diagram



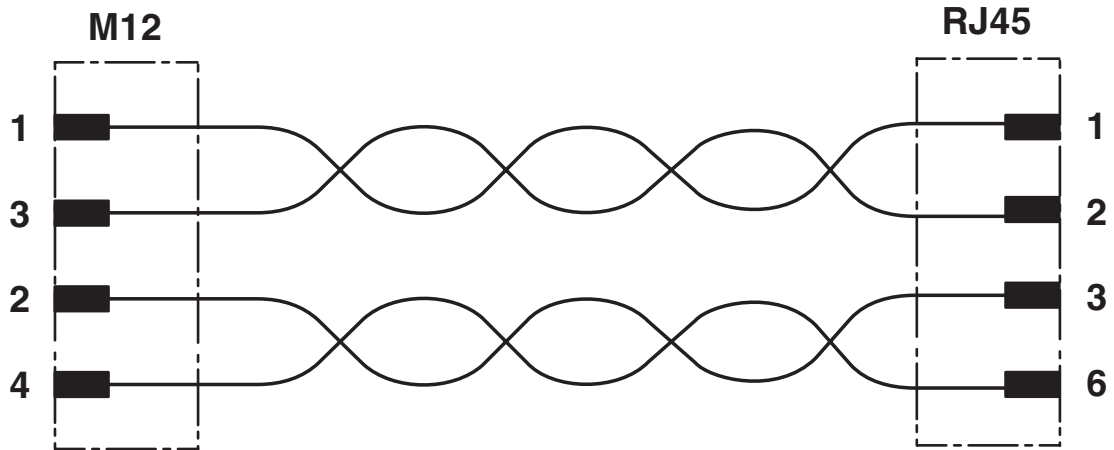
Pin assignment M12 male connector, 4-pos., D-coded, male side

Schematic diagram



Connector pin assignment plug RJ45

Circuit diagram



Contact assignment of the M12 and RJ45 plug

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)