

# NBC- 2,0-94F/P12FSX - Network cable



1584459

<https://www.phoenixcontact.com/us/products/1584459>

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Network cable, Ethernet CAT6<sub>A</sub> (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), free cable end, on Socket straight M12 Push Pull, coding: X / IP67, cable length: 2 m

## Commercial data

Item number	1584459
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF04
Product key	AF1CMJ
GTIN	4067923100930
Weight per piece (including packing)	126 g
Weight per piece (excluding packing)	116.536 g
Customs tariff number	85444290
Country of origin	PL

## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard
Number of positions	8
Shielded	yes

### Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT6 <sub>A</sub> , 10 Gbps

### Signaling

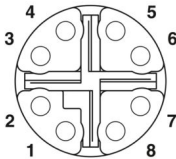
Status display	no
Status display present	no

### Electrical properties

Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	0.5 A
Transmission medium	Copper
Transmission speed	10 Gbps

### Connector

#### Connection 1

Dimensional drawing	 <p>Pin assignment of M12 socket, 8-pos., X-coded, socket side view</p>
Type	M12 Socket, straight, 8-position, shielded (Advanced Shielding Technology), Push Pull, Keying: X
Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Ethernet CAT6 <sub>A</sub> (IEC 11801), 10 Gbps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Overvoltage category	II
Degree of pollution	3
Material Contact	CuZn

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Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-010


## Connection 2

Type	free cable end
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## Cable/line

Cable length	2 m
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## Ethernet 10 Gbit [94F]

Dimensional drawing	
UL AWM Style	21238 (80 °C / 600 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet 10 Gbit [94F]
Conductor structure	4x2xAWG26/7; S/FTP
AWG signal line	26
Conductor cross-section	4x 2x 0.14 mm <sup>2</sup>
Wire diameter incl. insulation	1 mm ±0.05 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
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Optical shield covering	70 %
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 290.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)

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Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 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	51 mm
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
	in accordance with UN ECE-R 118.03
	according to CSA C 22.2 No. 210-FT1
Resistance to oil	in accordance with DIN EN 60811-404
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)

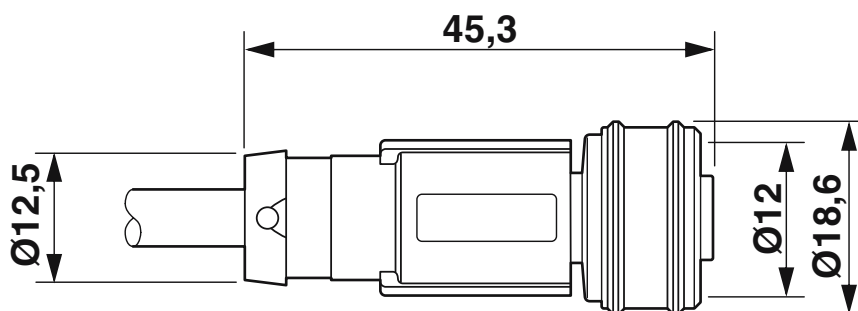
## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP67/IP20
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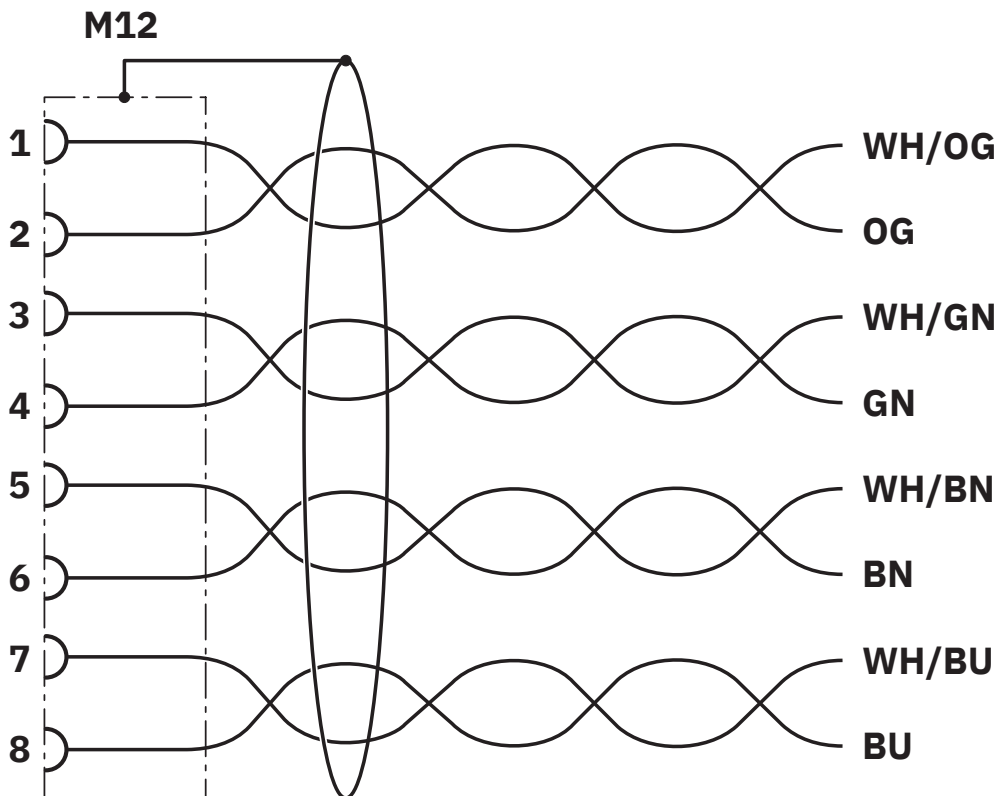
Drawings

Dimensional drawing



M12 push-pull female connector, straight

Circuit diagram



Contact assignment of the M12 plugs

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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