

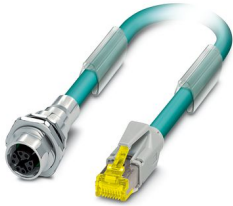
# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

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, degree of protection: IP67/IP20, cable length: 0.5 m, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

## Commercial data

Item number	1417828
Packing unit	1 pc
Minimum order quantity	10 pc
Sales key	ABN
Product key	ABNPAC
GTIN	4055626126470
Weight per piece (including packing)	63.2 g
Weight per piece (excluding packing)	59.96 g
Customs tariff number	85444290
Country of origin	PL

## Technical data

### Product properties

Product type	Circular connectors (device side)
Sensor type	Ethernet
Number of positions	8
Number of slots	1
Shielded	yes
Coding	X - data
Cable outlet	straight

### Insulation characteristics

Degree of pollution	3
---------------------	---

### Material specifications

Material	Zinc die-cast (nickel-plated)
Flammability rating according to UL 94	V2
Seal material	FKM
Material of grip body	Zinc die-cast, nickel-plated
Contact material	CuZn
Contact surface material	gold-plated
Contact carrier material	PPA
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	PUR

### Electrical properties

Rated voltage (III/3)	72 V (DC)
Nominal voltage $U_N$	48 V
Nominal current $I_N$	0.5 A
Transmission medium	Copper
Transmission characteristics (category)	CAT6 <sub>A</sub>

### Connector

#### Connection 1

Type	Flush-type female connector straight M12
Locking type	SPEEDCON
Degree of protection	IP67

#### Connection 2

Type	Plug straight RJ45
------	--------------------

### Cable/line

Cable length	0.50 m
--------------	--------


Ethernet 10 Gbit [94F]

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

Dimensional drawing	
Shielded	yes
UL AWM Style	20963 (80°C/30 V)
Cable weight	42 kg/km
Cable type	Ethernet 10 Gbit
Short symbol	02YSC11Y
Cable type (abbreviation)	94F
Signal type/category	Ethernet CAT6 <sub>A</sub> , 10 Gbps
Cable structure	4x2xAWG26/7; S/FTP
External cable diameter	6.4 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Thickness, outer sheath	0.65 mm
Conductor material	Bare Cu litz wires
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	4x 2x 0.14 mm <sup>2</sup>
Material wire insulation	Foamed PE
Wire diameter incl. insulation	1.04 mm
Single wire, color	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined foil
Overall twist	4 pairs for core
Shielding	Tinned copper braided shield
Optical shield covering	70 %
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.)
Cable insulation resistance	≥ 500 MΩ*km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Loop resistance	≤ 290.00 Ω/km
Cable capacity	47 nF/km
Signal runtime	5.13 ns/m
Tensile strength	≤ 100 N
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

Damping	3.1 dB (with 1 MHz)
	5.7 dB (at 4 MHz)
	8 dB (at 8 MHz)
	8.9 dB (at 10 MHz)
	11.2 dB (at 16 MHz)
	12.6 dB (at 20 MHz)
	14.1 dB (at 25 MHz)
	15.8 dB (at 31.25 MHz)
	22.5 dB (at 62.5 MHz)
	28.7 dB (at 100 MHz)
	41.4 dB (at 200 MHz)
	46.6 dB (at 250 MHz)
	51.4 dB (at 300 MHz)
Near end crosstalk attenuation (NEXT)	60.1 dB (at 400 MHz)
	67.9 dB (at 500 MHz)
	75.3 dB (with 1 MHz)
	66.3 dB (at 4 MHz)
	61.8 dB (at 8 MHz)
	60.3 dB (at 10 MHz)
	57.2 dB (at 16 MHz)
	55.8 dB (at 20 MHz)
	54.3 dB (at 25 MHz)
	52.8 dB (at 31.25 MHz)
	48.4 dB (at 62.5 MHz)
	45.3 dB (at 100 MHz)
	40.8 dB (at 200 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	39.3 dB (at 250 MHz)
	38.1 dB (at 300 MHz)
	38.1 dB (at 400 MHz)
	38.1 dB (at 500 MHz)
	72.3 dB (with 1 MHz)
	63.3 dB (at 4 MHz)
	58.8 dB (at 8 MHz)
	57.3 dB (at 10 MHz)
	54.2 dB (at 16 MHz)
	52.8 dB (at 20 MHz)
	51.3 dB (at 25 MHz)
	49.9 dB (at 31.25 MHz)
	45.4 dB (at 62.5 MHz)
42.3 dB (at 100 MHz)	
37.8 dB (at 200 MHz)	
36.3 dB (at 250 MHz)	
35.1 dB (at 300 MHz)	
33.3 dB (at 400 MHz)	

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

Return attenuation (RL)	31.8 dB (at 500 MHz)
	20 dB (with 1 MHz)
	23 dB (at 4 MHz)
	24.5 dB (at 8 MHz)
	25 dB (at 10 MHz)
	25 dB (at 16 MHz)
	25 dB (at 20 MHz)
	24.2 dB (at 25 MHz)
	23.3 dB (at 31.25 MHz)
	20.7 dB (at 62.5 MHz)
	19 dB (at 100 MHz)
	16.4 dB (at 200 MHz)
	15.6 dB (at 250 MHz)
	15.6 dB (at 300 MHz)
15.6 dB (at 400 MHz)	
15.6 dB (at 500 MHz)	
Shield attenuation	≥ 80 dB (at 30 ... 100 MHz)
Halogen-free	according to IEC 60754-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Flame resistance	according to IEC 60332-1-2
Ambient temperature (operation)	-20 °C ... 80 °C (Cable, flexible installation)
	-40 °C ... 80 °C (cable, fixed installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP67/IP20
Ambient temperature (operation)	-25 °C ... 60 °C (Plug / socket)

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable

1417828

<https://www.phoenixcontact.com/in/products/1417828>



## Drawings

### Schematic diagram



Connector pin assignment plug RJ45

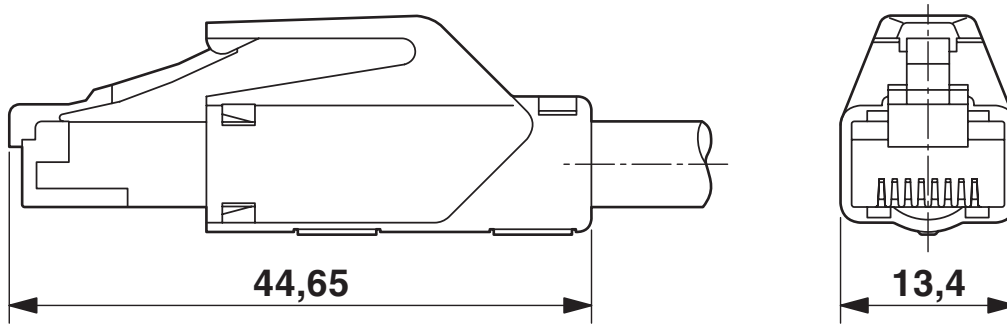
# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

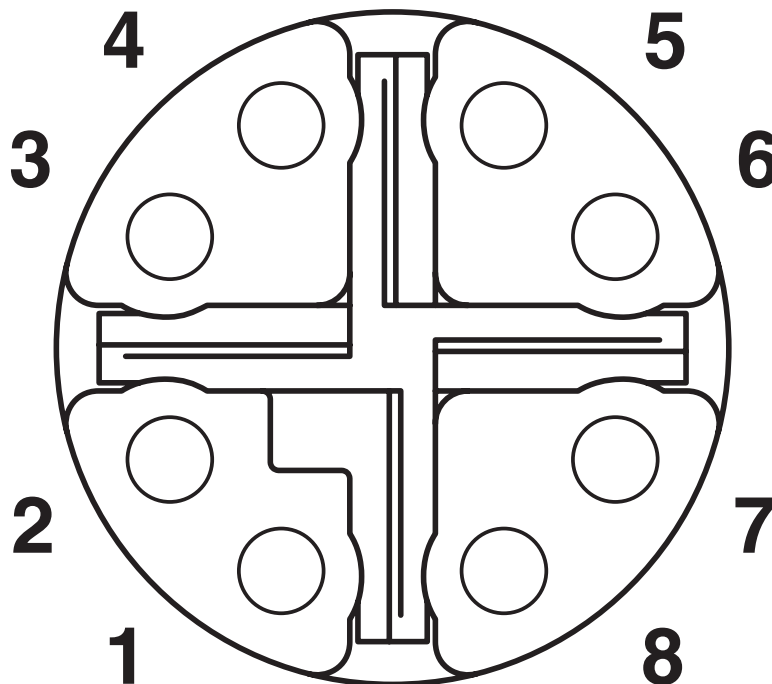
<https://www.phoenixcontact.com/in/products/1417828>

Dimensional drawing



RJ45 connector, IP20

Schematic diagram



M12 socket pin assignment, 8-pos, view of socket side

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1417828>



**EAC**

Approval ID: 19060508

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

## Classifications

### ECLASS

ECLASS-11.0	27060308
ECLASS-12.0	27060308
ECLASS-13.0	27060308

### ETIM

ETIM 9.0	EC002599
----------	----------

### UNSPSC

UNSPSC 21.0	26121600
-------------	----------

# NBC-FSBPX/0,5-94F/R4AC-10G - Network cable



1417828

<https://www.phoenixcontact.com/in/products/1417828>

## 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"

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

[info@phoenixcontact.co.in](mailto:info@phoenixcontact.co.in)