

# NBC-FSBPXS/0,9-94F/R4AC-10G - Network cable



1412313

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Network cable, degree of protection: IP67/IP20, cable length: 0.9 m, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

## Your advantages

- Perfect for industrial applications
- Perfect for office, building, and protected industrial applications (e.g., in control cabinets)
- Compact angle

## Commercial data

Item number	1412313
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB18
Product key	ABNPAC
GTIN	4046356953535
Weight per piece (including packing)	83.5 g
Weight per piece (excluding packing)	80.3 g
Customs tariff number	85444210
Country of origin	PL

## Technical data

### Mounting

Mounting type	Screw mounting
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### Product properties

Product type	Circular connectors (device side)
Type	M12
Sensor type	Ethernet
Number of positions	8
Number of slots	1
Shielded	yes
Coding	X
Cable outlet	straight

### Insulation characteristics

Degree of pollution	3
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### 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>
Transmission speed	10 Gbps

### Connector

#### Connection 1

Type	Flush-type female connector straight M12
Locking type	SPEEDCON
Coding type	X (Data)
Degree of protection	IP67

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## Connection 2

Type	Plug straight RJ45
Degree of protection	IP20

## Cable/line

Cable length	0.90 m
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## Ethernet 10 Gbit [94F]

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	6.40 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	700.00 V (50 Hz, 1 min.)

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Cable insulation resistance	$\geq 500 \text{ M}\Omega \cdot \text{km}$
Wave impedance	$100 \text{ }\Omega \pm 5 \text{ }\Omega$ (at 100 MHz)
Loop resistance	$\leq 290.00 \text{ }\Omega/\text{km}$
Cable capacity	47 nF/km
Signal runtime	5.13 ns/m
Tensile strength	$\leq 100 \text{ N}$
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Near end crosstalk attenuation (NEXT)	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)
	39.3 dB (at 250 MHz)
	38.1 dB (at 300 MHz)
	38.1 dB (at 400 MHz)
	38.1 dB (at 500 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	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)
	31.8 dB (at 500 MHz)
Return attenuation (RL)	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)

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	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	≥ 80.00 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)

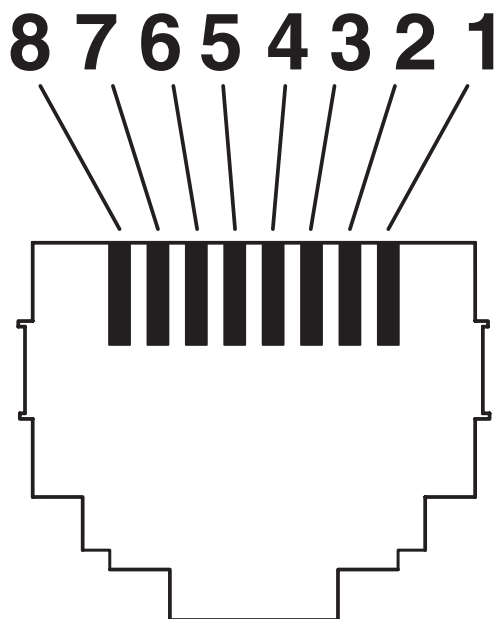
## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP67 (M12 socket)
	IP20 (RJ45 connector)
	IP67/IP20
Ambient temperature (operation)	-25 °C ... 60 °C (Plug / socket)

## Drawings

### Schematic diagram

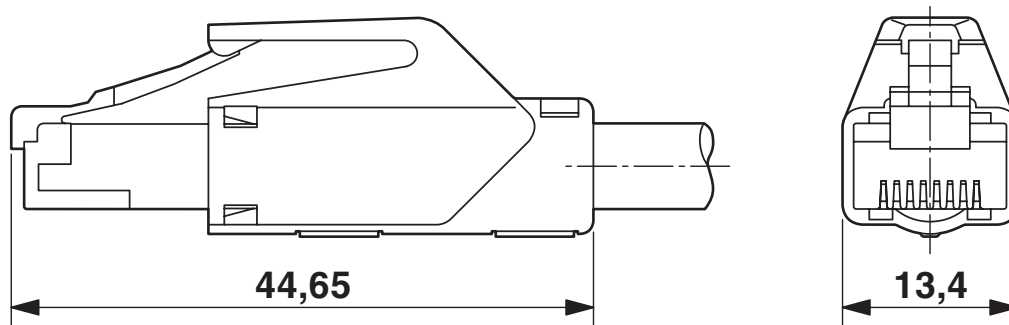


Connector pin assignment plug RJ45

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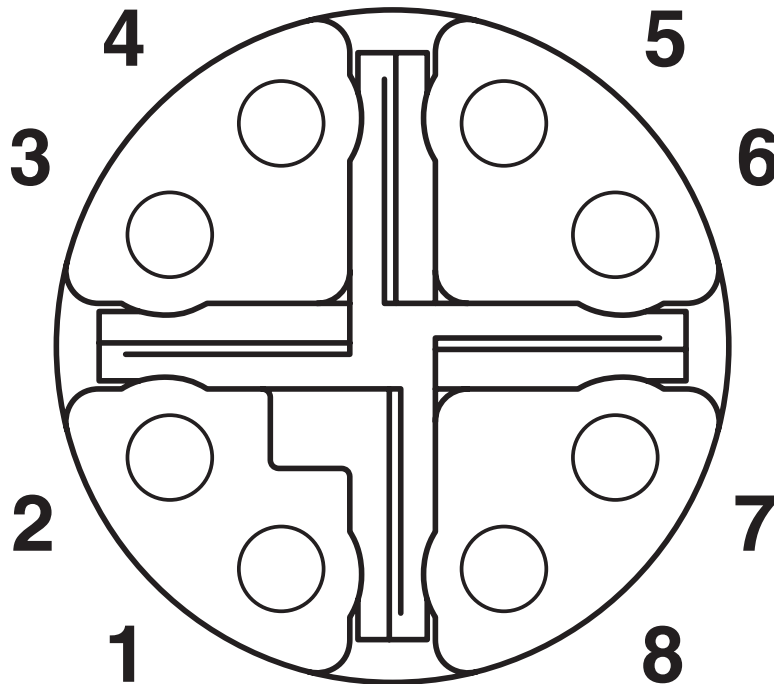
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Dimensional drawing



RJ45 connector, IP20

Schematic diagram



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

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## Approvals

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**EAC**

Approval ID: 19060508



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Classifications

ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	506ed697-e39f-4fef-b47d-e257afcdc6da