

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



1417828

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

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Network cable, degree of protection: IP67/IP20, cable length: 0.5 m, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet



Commercial data

Item number	1417828
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB18
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
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 _A

Connector

Connection 1

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

Connection 2

Type	Plug straight RJ45
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Cable/line

Cable length	0.50 m
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Ethernet 10 Gbit [94F]

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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 _A , 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 ²
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.)
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

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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) 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)

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	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)

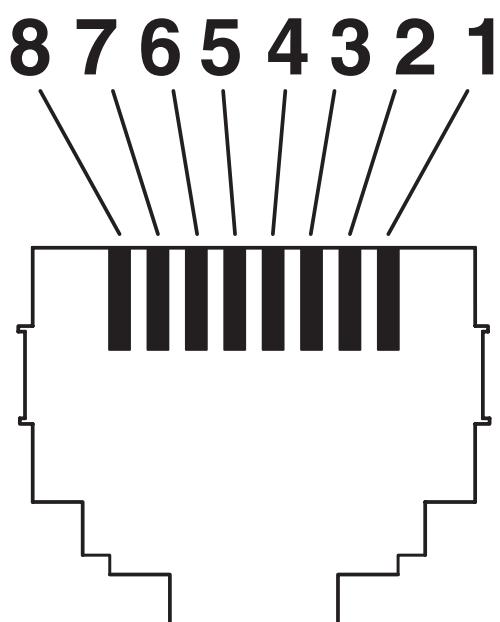
Environmental and real-life conditions

Ambient conditions

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

Drawings

Schematic diagram



Connector pin assignment plug RJ45

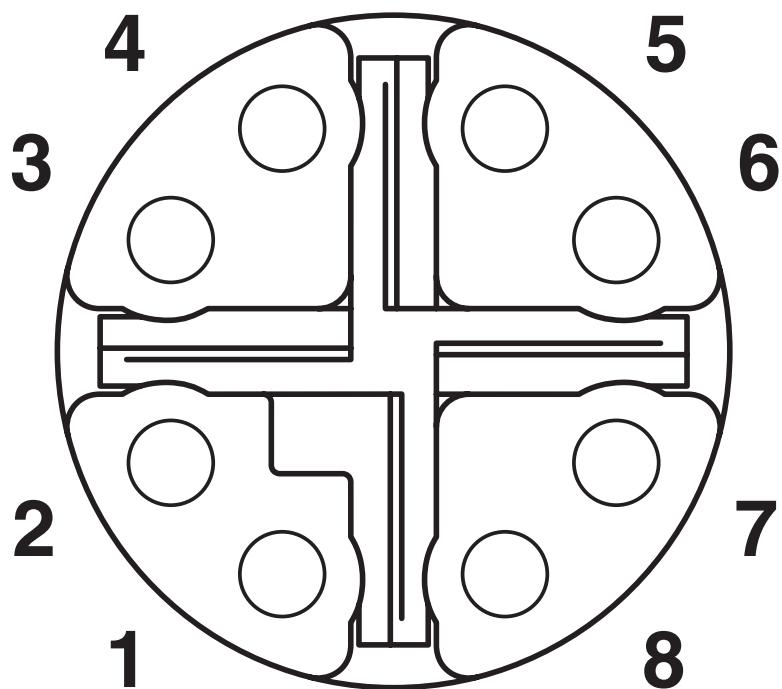
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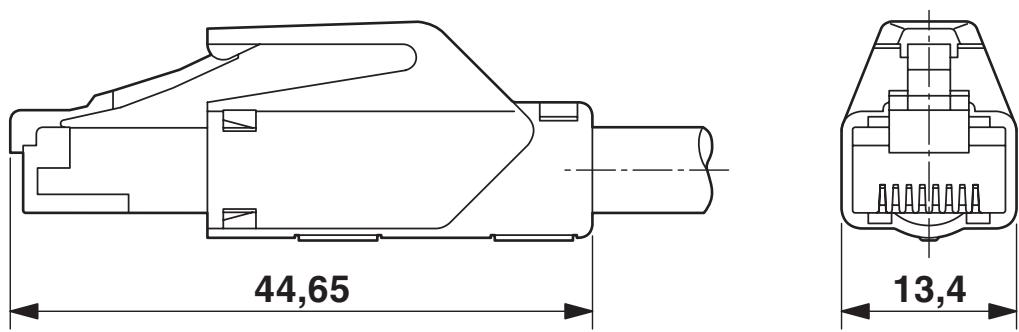


Schematic diagram



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

Dimensional drawing



RJ45 connector, IP20

Approvals

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



EAC

Approval ID: 19060508

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002599
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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	78037b72-cb78-43da-a760-16c223bb3802

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