

NBC-R4OC/5,0-BC6A/R4OC-OG - Patch cable



1698021
<https://www.phoenixcontact.com/us/products/1698021>

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Patch cable, RJ45/IP20 straight on RJ45/IP20 straight, cable length: 5 m, number of positions: 8, 10 Gbps, CAT6_A, connection cross section: AWG 26- 26, Ethernet, 4x2xAWG26/7; S/FTP, orange

Your advantages

- Perfect for office, building, and protected industrial applications (e.g., in control cabinets)
- Worldwide approval with CE, UL, WEEE, and EAC
- Secure connection and disconnection with reliable locking clip protection
- Ideal EMC properties, thanks to 360° shielding
- Simultaneous power transmission with PoE++
- Future-proof high-speed data transmission with up to 10 Gbps (CAT6_A)

Commercial data

Item number	1698021
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB11
Product key	ABNABH
GTIN	4067923262416
Weight per piece (including packing)	267.6 g
Weight per piece (excluding packing)	281 g
Customs tariff number	85444210
Country of origin	CN

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Technical data

Product properties

Product type	Data cable preassembled
Product family	RJ45 STANDARD CAT6A
Sensor type	Ethernet
Number of positions	8
Shielded	yes

Electrical properties

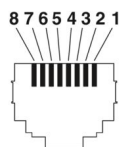
Rated voltage (III/2)	72 V
Transmission medium	Copper
Transmission speed	10 Gbps
Transmission speed	10 Gbps

Dimensions

Width	11.6 mm
Height	14.8 mm
Length	40 mm

Connector

Connection 1

Dimensional drawing	 Connector pin assignment plug RJ45
Type	RJ45 Plug, straight, 8-position
Number of positions	8
Shielded	yes
Signal type/category	Ethernet CAT6 _A (IEC 11801:2002), 10 Gbps
Insertion/withdrawal cycles	≥ 750
Insertion force	30 N (per signal contact)
Withdrawal force	50 N (per signal contact)
Overvoltage category	I
Degree of pollution	2
Material Contact	Brass
Material Contact surface	Au
Material Contact carrier	PC

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Color (Housing)	orange
Flammability rating according to UL 94	V0
Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 80 °C

Connection 2

Dimensional drawing	 Connector pin assignment plug RJ45
Type	RJ45 Plug, straight, 8-position
Number of positions	8
Shielded	yes
Signal type/category	Ethernet CAT6 _A (IEC 11801:2002), 10 Gbps
Insertion/withdrawal cycles	≥ 750
Insertion force	30 N (per signal contact)
Withdrawal force	50 N (per signal contact)
Overvoltage category	I
Degree of pollution	2
Material Contact	Brass
Material Contact surface	Au
Material Contact carrier	PC
Color (Housing)	orange
Flammability rating according to UL 94	V0
Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 80 °C

Cable/line

Cable length	5.00 m
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Ethernet, Type B, 8-pos., CAT6A, LSZH [BC6A]

Number of positions	8
Shielded	yes
Cable type	Ethernet, Type B, 8-pos., CAT6A, LSZH [BC6A]
Conductor structure	4x2xAWG26/7; S/FTP
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Wire diameter incl. insulation	1 mm
External cable diameter	6.50 mm ±0.3 mm
Outer sheath, material	LSZH

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External sheath, color	orange
Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wires, quantity	8
Single wire, cross section [AWG]	26
Thickness, outer sheath	approx. 0.70 mm
Optical shield covering	70 %
Insulation resistance	$\geq 5000 \text{ M}\Omega \cdot \text{km}$
Loop resistance	$\leq 148.00 \text{ }\Omega/\text{km}$
Wave impedance	100 Ω
Minimum bending radius, fixed installation	8 x D
Smallest bending radius, fixed installation	52 mm
Near end crosstalk attenuation (NEXT)	75 dB (with 1 MHz)
	66.3 dB (at 4 MHz)
	60.3 dB (at 10 MHz)
	57.2 dB (at 16 MHz)
	55.8 dB (at 20 MHz)
	52.9 dB (at 31.25 MHz)
	48.4 dB (at 62.5 MHz)
	45.3 dB (at 100 MHz)
	40.8 dB (at 200 MHz)
	38.1 dB (at 300 MHz)
Power-summed near end crosstalk attenuation (PSNEXT)	36.3 dB (at 400 MHz)
	34.8 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)
Return attenuation (RL)	45.4 dB (at 62.5 MHz)
	42.3 dB (at 100 MHz)
	37.8 dB (at 200 MHz)
	35.1 dB (at 300 MHz)
	33.3 dB (at 400 MHz)
	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)

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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 300 MHz)
	15.6 dB (at 400 MHz)
	15.6 dB (at 500 MHz)
Shield attenuation	3.1 dB (with 1 MHz)
	5.7 dB (at 4 MHz)
	8.9 dB (at 10 MHz)
	11.2 dB (at 16 MHz)
	12.6 dB (at 20 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)
	51.4 dB (at 300 MHz)
Halogen-free	complying with IEC 60754-1/2
Flame resistance	IEC 60332-1-2/IEC 60332-3-24/CM
Ambient temperature (operation)	-20 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)
Ambient temperature (installation)	0 °C ... 60 °C

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-20 °C ... 80 °C
Ambient temperature (storage/transport)	0 °C ... 40 °C

Standards and regulations

Flame resistance	IEC 60332-1-2
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Approvals

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UL Listed

Approval ID: E335024_20210804



cUL Listed

Approval ID: E335024_20210804

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Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 9.0	EC001855
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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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