

NBC-R4OC/7,5-BC6A/R4OC-YE - Patch cable

1697698

<https://www.phoenixcontact.com/us/products/1697698>



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Patch cable, RJ45/IP20 straight on RJ45/IP20 straight, cable length: 7.5 m, number of positions: 8, 10 Gbps, CAT6_A, connection cross section: AWG 26- 26, Ethernet, 4x2xAWG26/7; S/FTP, yellow

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 | 1697698 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB11 |
| Product key | ABNABH |
| GTIN | 4067923262614 |
| Weight per piece (including packing) | 392.7 g |
| Weight per piece (excluding packing) | 414.3 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 |
| Power transmission | PoE++ |

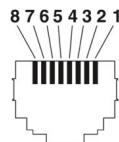
Dimensions

| | |
|--------|---------|
| 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 CAT6A (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 |

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| | |
|--|------------------|
| Material Contact carrier | PC |
| Color (Housing) | yellow |
| 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 CAT6A (IEC 11801:2002), 10 Gbps |
| Insertion/withdrawal cycles | ≥ 750 |
| Insertion force | 30 N (per signal contact) |
| Withdrawal force | 50 N (per signal contact) |
| Overshoot category | I |
| Degree of pollution | 2 |
| Material Contact | Brass |
| Material Contact surface | Au |
| Material Contact carrier | PC |
| Color (Housing) | yellow |
| Flammability rating according to UL 94 | V0 |
| Degree of protection | IP20 |
| Ambient temperature (operation) | -20 °C ... 80 °C |

Cable/line

| | |
|--|--|
| Cable length | 7.50 m |
| 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 |

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| | |
|--|---|
| Outer sheath, material | LSZH |
| External sheath, color | yellow |
| 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) 36.3 dB (at 400 MHz) 34.8 dB (at 500 MHz) |
| Power-summed 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) 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) |

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| | |
|------------------------------------|---|
| | 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 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) |
| | 60.1 dB (at 400 MHz) |
| | 67.9 dB (at 500 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

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1697698>



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 |
|---|--------------------|

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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