

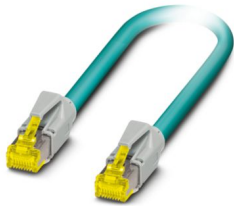
# NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable



1408360

<https://www.phoenixcontact.com/us/products/1408360>

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Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

## Your advantages

- Compact angle
- Perfect for industrial applications
- PVC cable for flexible installations
- 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++
- Resistant to shock and vibrations, thanks to robust molding
- High-speed data transmission with up to 1 Gbps (CAT5)

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1408360             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | AB11                |
| Product key                          | ABNABF              |
| Catalog page                         | Page 402 (C-2-2019) |
| GTIN                                 | 4046356805056       |
| Weight per piece (including packing) | 117.4 g             |
| Weight per piece (excluding packing) | 98.91 g             |
| Customs tariff number                | 85444290            |
| Country of origin                    | PL                  |

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## Technical data

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Data cable preassembled |
| Sensor type         | Ethernet                |
| Number of positions | 8                       |
| Shielded            | yes                     |

### Signaling

|                        |    |
|------------------------|----|
| Status display         | No |
| Status display present | No |

### 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           |

### Mechanical properties

#### Mechanical data

|                                     |         |
|-------------------------------------|---------|
| Insertion/withdrawal cycles         | 200     |
| Insertion force per signal contact  | 50.00 N |
| Extraction force per signal contact | 30 N    |

### Material specifications

|                        |     |
|------------------------|-----|
| Outer sheath, material | PUR |
|------------------------|-----|

### Connector

#### Connection 1

|                             |                    |
|-----------------------------|--------------------|
| Type                        | Plug straight RJ45 |
| Shielded                    | yes                |
| Insertion/withdrawal cycles | ≥ 750              |
| Degree of protection        | IP20               |

#### Connection 2

|                             |                    |
|-----------------------------|--------------------|
| Type                        | Plug straight RJ45 |
| Shielded                    | yes                |
| Insertion/withdrawal cycles | ≥ 750              |
| Degree of protection        | IP20               |


### Cable/line

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|                                 |  |
|---------------------------------|--|
| Cable length                    | 2.00 m   |
| 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.)   |
| 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  |

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|  |                        |
|--|------------------------|
| Tensile strength                                       | ≤ 100 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)      |
|  | 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)                                   |                        |

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|                                 |   |
|---------------------------------|---|
|                                 | 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            | IP20   |
|                                 | IP20   |
| Ambient temperature (operation) | -20 °C ... 70 °C (RJ45 connector)            |
|                                 | -20 °C ... 80 °C (cable, fixed installation) |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060308 |
| ECLASS-12.0 | 27060308 |
| ECLASS-13.0 | 27060307 |

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

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