

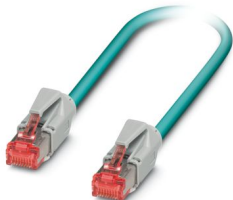
# NBC-R4AC/5,0-93E/R4AC - Network cable



1408935

<https://www.phoenixcontact.com/us/products/1408935>

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Assembled Ethernet cable, CAT5e, shielded, 2-pair, 26\* AWG stranded (7-wire), RAL 5021 (water blue), RJ45 plug/IP20 to RJ45 plug/IP20, line, length: 5 m

## 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                          | 1408935             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | AB11                |
| Product key                          | ABNABD              |
| Catalog page                         | Page 398 (C-2-2019) |
| GTIN                                 | 4046356856645       |
| Weight per piece (including packing) | 235.7 g             |
| Weight per piece (excluding packing) | 215.805 g           |
| Customs tariff number                | 85444210            |
| Country of origin                    | PL                  |

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## Technical data

### Product properties

|                      |                         |
|----------------------|-------------------------|
| Product type         | Data cable preassembled |
| Sensor type          | Ethernet                |
| Number of positions  | 4                       |
| No. of cable outlets | 1                       |
| Number of slots      | 1                       |
| Shielded             | yes                     |
| Cable outlet         | straight                |

### Signaling

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

### Electrical properties

|                                         |                       |
|-----------------------------------------|-----------------------|
| Rated voltage (III/3)                   | 72 V (DC)             |
| Nominal voltage $U_N$                   | 48 V                  |
| Nominal current $I_N$                   | 1 A                   |
| Transmission medium                     | Copper                |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |
| Transmission speed                      | 100 Mbps              |

### Mechanical properties

#### Mechanical data

|                                     |            |
|-------------------------------------|------------|
| Insertion/withdrawal cycles         | $\geq 750$ |
| Insertion force per signal contact  | 50.00 N    |
| Extraction force per signal contact | 30 N       |

### Material specifications

|                                        |                    |
|----------------------------------------|--------------------|
| Flammability rating according to UL 94 | V2                 |
| Outer sheath, material                 | PUR                |
| Conductor material                     | Bare Cu litz wires |

### Connector

#### Connection 1

|                             |                         |
|-----------------------------|-------------------------|
| Type                        | Plug straight RJ45      |
| Shielded                    | yes                     |
| Handle color                | gray                    |
| Material                    | CuSn (Contact)          |
|                             | Ni/Au (Contact surface) |
|                             | PC (Contact carriers)   |
|                             | PA (Housing)            |
| Insertion/withdrawal cycles | $\geq 750$              |

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|                                 |                  |
|---------------------------------|------------------|
| Degree of protection            | IP20             |
| Ambient temperature (operation) | -40 °C ... 60 °C |

## Connection 2

|                                 |                         |
|---------------------------------|-------------------------|
| Type                            | Plug straight RJ45      |
| Shielded                        | yes                     |
| Handle color                    | gray                    |
| Material                        | CuSn (Contact)          |
|                                 | Ni/Au (Contact surface) |
|                                 | PC (Contact carriers)   |
|                                 | PA (Housing)            |
| Insertion/withdrawal cycles     | ≥ 750                   |
| Degree of protection            | IP20                    |
| Ambient temperature (operation) | -40 °C ... 60 °C        |

## Cable/line

|              |        |
|--------------|--------|
| Cable length | 5.00 m |
|--------------|--------|

## Ethernet flexible CAT5, 2-pair [93E]

|                                 |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Shielded                        | yes                                                                                  |
| UL AWM Style                    | 20963 (80°C/30 V)                                                                    |
| Cable weight                    | 42 kg/km                                                                             |
| Cable type                      | Ethernet flexible CAT5, 2-pair                                                       |
| Short symbol                    | 02YS(ST)C11Y                                                                         |
| Cable type (abbreviation)       | 93E                                                                                  |
| Signal type/category            | Ethernet CAT5 (IEC 11801), 100 Mbps                                                  |
| Cable structure                 | 2x2xAWG26/7, SF/UTP                                                                  |
| External cable diameter         | 6.40 mm ±0.2 mm                                                                      |
| Outer sheath, material          | PUR                                                                                  |
| External sheath, color          | water blue RAL 5021                                                                  |
| Thickness, outer sheath         | 1.20 mm                                                                              |
| Conductor material              | Bare Cu litz wires                                                                   |
| Conductor structure signal line | 7x 0.16 mm                                                                           |
| AWG signal line                 | 26                                                                                   |
| Conductor cross section         | 2x 2x 0.14 mm²                                                                       |
| Material wire insulation        | Foamed PE                                                                            |
| Wire diameter incl. insulation  | 0.98 mm                                                                              |

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|                                                      |                                                       |
|------------------------------------------------------|-------------------------------------------------------|
| Single wire, color                                   | white/orange-orange, white/green-green                |
| Twisted pairs                                        | 2 cores to the pair                                   |
| Overall twist                                        | Two pairs with two fillers to the core                |
| Shielding                                            | Aluminum-coated foil, tinned copper braided shield    |
| Optical shield covering                              | 70 %                                                  |
| Current carrying capacity of cable                   | 2.00 A (according to DIN VDE 0891-1)                  |
| Nominal voltage, cable                               | ≤ 100 V (Peak value, not for high-power applications) |
| 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                                           |
| Coupling resistance                                  | ≤ 100.00 mΩ/m (at 10 MHz)                             |
| Wave impedance                                       | 100 Ω ±5 Ω (at 100 MHz)                               |
| Loop resistance                                      | ≤ 290.00 Ω/km                                         |
| Cable capacity                                       | approx. 45 nF/km (at 1 kHz)                           |
| Signal runtime                                       | 5.3 ns/m                                              |
| Tensile strength                                     | ≤ 80 N                                                |
| Minimum bending radius, fixed installation           | 4 x D                                                 |
| Minimum bending radius, flexible installation        | 8 x D                                                 |
| Near end crosstalk attenuation (NEXT)                | 65.3 dB (with 1 MHz)                                  |
|                                                      | 56.3 dB (at 4 MHz)                                    |
|                                                      | 50.3 dB (at 10 MHz)                                   |
|                                                      | 47.2 dB (at 16 MHz)                                   |
|                                                      | 45.8 dB (at 20 MHz)                                   |
|                                                      | 42.9 dB (at 31.25 MHz)                                |
|                                                      | 38.4 dB (at 62.5 MHz)                                 |
|                                                      | 35.3 dB (at 100 MHz)                                  |
| Power-summed near end crosstalk attenuation (PSNEXT) | 62.3 dB (with 1 MHz)                                  |
|                                                      | 53.3 dB (at 4 MHz)                                    |
|                                                      | 47.3 dB (at 10 MHz)                                   |
|                                                      | 44.2 dB (at 16 MHz)                                   |
|                                                      | 42.8 dB (at 20 MHz)                                   |
|                                                      | 39.9 dB (at 31.25 MHz)                                |
|                                                      | 35.4 dB (at 62.5 MHz)                                 |
|                                                      | 32.3 dB (at 100 MHz)                                  |
| Return attenuation (RL)                              | 23 dB (at 4 MHz)                                      |
|                                                      | 24.1 dB (at 8 MHz)                                    |
|                                                      | 25 dB (at 10 MHz)                                     |
|                                                      | 25 dB (at 16 MHz)                                     |
|                                                      | 25 dB (at 20 MHz)                                     |
|                                                      | 23.6 dB (at 31.25 MHz)                                |
|                                                      | 21.5 dB (at 62.5 MHz)                                 |
|                                                      | 20.1 dB (at 100 MHz)                                  |
| Halogen-free                                         | according to IEC 60754-1                              |
| Resistance to oil                                    | in accordance with EN 60811-2-1                       |

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|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Flame resistance                | according to IEC 60332-1-2                      |
|                                 | in acc. to UL VW1                               |
|                                 | in accordance with UN ECE-R 118.03              |
| 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 (RJ45 connector)             |
|                                 | IP20                              |
| Ambient temperature (operation) | -20 °C ... 70 °C (RJ45 connector) |

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