

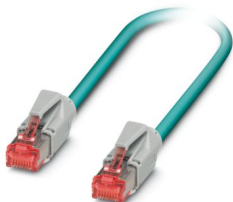
# NBC-R4AC/ 2,0-93E/R4AC US - Network cable



1419764

<https://www.phoenixcontact.com/us/products/1419764>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Assembled Ethernet cable, CAT5e, shielded, 2-pair, AWG 26 stranded (7-wire), RAL 5021 (water blue), RJ45 plug/IP20 on RJ45 plug/IP20, line, length 1 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1419764                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF15                           |
| Product key                          | BF1IHA                         |
| GTIN                                 | 4055626218564                  |
| Weight per piece (including packing) | 22.22 g                        |
| Weight per piece (excluding packing) | 22.22 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | US                             |

# NBC-R4AC/ 2,0-93E/R4AC US - Network cable



1419764

<https://www.phoenixcontact.com/us/products/1419764>

## 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                       |

### Interfaces

|                      |                                          |
|----------------------|------------------------------------------|
| Bus system           | Ethernet                                 |
| Signal type/category | Ethernet CAT5 (IEC 11801:2002), 100 Mbps |

### Signaling

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

### Electrical properties

|                                         |                       |
|-----------------------------------------|-----------------------|
| Nominal voltage $U_N$                   | 48 V AC               |
|                                         | 60 V DC               |
| Nominal current $I_N$                   | 1 A                   |
| Transmission medium                     | Copper                |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |

### Material specifications

|                                        |    |
|----------------------------------------|----|
| Flammability rating according to UL 94 | V2 |
|----------------------------------------|----|

### Connector

#### Connection 1

|      |                    |
|------|--------------------|
| Type | Plug straight RJ45 |
|------|--------------------|

#### Connection 2

|      |                    |
|------|--------------------|
| Type | Plug straight RJ45 |
|------|--------------------|

### Cable/line

|              |     |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|

Ethernet flexible CAT5, 2-pair [93E]

# NBC-R4AC/ 2,0-93E/R4AC US - Network cable



1419764

<https://www.phoenixcontact.com/us/products/1419764>

|                                               |                                                                                    |
|-----------------------------------------------|------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 42 kg/km                                                                           |
| UL AWM Style                                  | 20963 (80°C/30 V)                                                                  |
| Wiring standards/regulations                  | Electrical requirements EN 50288-2-2                                               |
| Number of positions                           | 4                                                                                  |
| Shielded                                      | yes                                                                                |
| Cable type                                    | Ethernet flexible CAT5, 2-pair [93E]                                               |
| Conductor structure                           | 2x2xAWG26/7, SF/UTP                                                                |
| Signal runtime                                | 5.3 ns/m                                                                           |
| Conductor structure signal line               | 7x 0.16 mm                                                                         |
| AWG signal line                               | 26                                                                                 |
| Conductor cross section                       | 2x 2x 0.14 mm <sup>2</sup>                                                         |
| Wire diameter incl. insulation                | 0.98 mm                                                                            |
| External cable diameter                       | 6.40 mm ±0.2 mm                                                                    |
| Outer sheath, material                        | PUR                                                                                |
| External sheath, color                        | water blue RAL 5021                                                                |
| Conductor material                            | Bare Cu litz wires                                                                 |
| Material wire insulation                      | Foamed PE                                                                          |
| Single wire, color                            | white/orange-orange, white/green-green                                             |
| Thickness, outer sheath                       | 1.20 mm                                                                            |
| Twisted pairs                                 | 2 cores to the pair                                                                |
| Overall twist                                 | Two pairs with two fillers to the core                                             |
| Optical shield covering                       | 70 %                                                                               |
| Insulation resistance                         | ≥ 500 MΩ*km                                                                        |
| Coupling resistance                           | ≤ 100.00 mΩ/m (at 10 MHz)                                                          |
| Loop resistance                               | ≤ 290.00 Ω/km                                                                      |
| Wave impedance                                | 100 Ω ±5 Ω (at 100 MHz)                                                            |
| Cable capacity                                | approx. 45 nF/km (at 1 kHz)                                                        |
| 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.)                                                           |
| Current carrying capacity of cable            | 2.00 A (according to DIN VDE 0891-1)                                               |
| Minimum bending radius, fixed installation    | 4 x D                                                                              |
| Minimum bending radius, flexible installation | 8 x D                                                                              |
| Smallest bending radius, fixed installation   | 26 mm                                                                              |
| Smallest bending radius, movable installation | 52 mm                                                                              |
| Tensile strength                              | ≤ 80 N                                                                             |

# NBC-R4AC/ 2,0-93E/R4AC US - Network cable



1419764

<https://www.phoenixcontact.com/us/products/1419764>

|                                                        |                                                 |
|--------------------------------------------------------|-------------------------------------------------|
| 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-summated 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)                            |
| Shield attenuation                                     | 3.2 dB (with 1 MHz)                             |
|                                                        | 6 dB (at 4 MHz)                                 |
|                                                        | 9.5 dB (at 10 MHz)                              |
|                                                        | 12.1 dB (at 16 MHz)                             |
|                                                        | 13.6 dB (at 20 MHz)                             |
|                                                        | 17.1 dB (at 31.25 MHz)                          |
|                                                        | 24.8 dB (at 62.5 MHz)                           |
|                                                        | 32 dB (at 100 MHz)                              |
| Halogen-free                                           | according to IEC 60754-1                        |
| Flame resistance                                       | according to IEC 60332-1-2                      |
|                                                        | in acc. to UL VW1                               |
|                                                        | in accordance with UN ECE-R 118.03              |
| Resistance to oil                                      | in accordance with EN 60811-2-1                 |
| Ambient temperature (operation)                        | -40 °C ... 80 °C (cable, fixed installation)    |
|                                                        | -20 °C ... 80 °C (Cable, flexible installation) |
| Ambient temperature (installation)                     | -20 °C ... 80 °C                                |

## Environmental and real-life conditions

### Ambient conditions

# NBC-R4AC/ 2,0-93E/R4AC US - Network cable



1419764

<https://www.phoenixcontact.com/us/products/1419764>

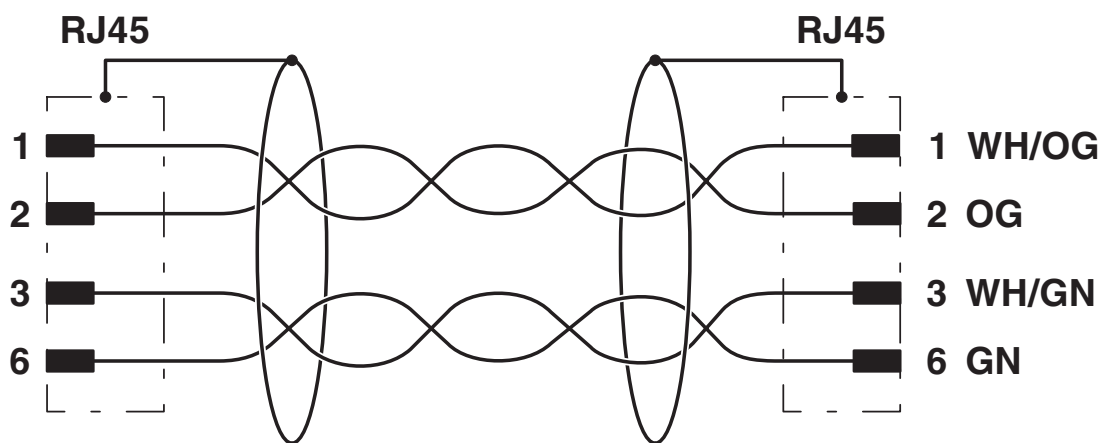
|                                 |                                   |
|---------------------------------|-----------------------------------|
| Degree of protection            | IP20 (RJ45 connector)             |
| Ambient temperature (operation) | -40 °C ... 60 °C (RJ45 connector) |

1419764

<https://www.phoenixcontact.com/us/products/1419764>

## Drawings

Circuit diagram



## Schematic diagram



Connector pin assignment plug RJ45

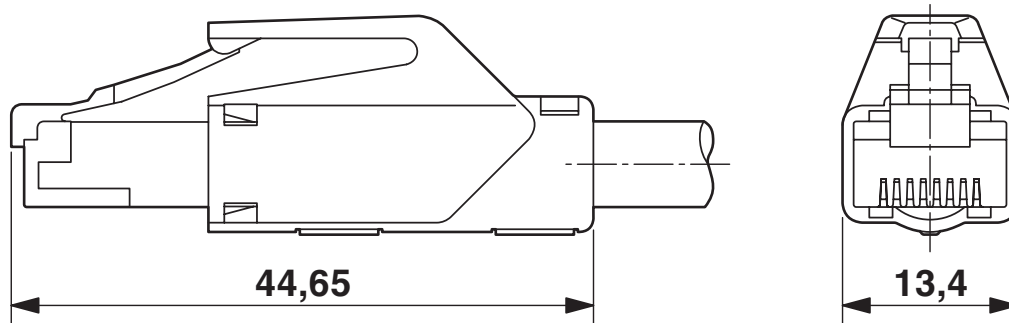
# NBC-R4AC/ 2,0-93E/R4AC US - Network cable

1419764

<https://www.phoenixcontact.com/us/products/1419764>



Dimensional drawing



RJ45 connector, IP20

Classifications

ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27061801 |
| ECLASS-12.0 | 27061801 |
| ECLASS-13.0 | 27061801 |

Environmental product compliance

|                                        |                                                                                                                                                                                                                                                                 |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| China RoHS                             |                                                                                                                                                                                                                                                                 |
| Environment friendly use period (EFUP) | <div>EFUP-50</div> <div>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.</div> |
| EU REACH SVHC                          |                                                                                                                                                                                                                                                                 |
| REACH candidate substance (CAS No.)    | No substance above 0.1 wt%                                                                                                                                                                                                                                      |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)