

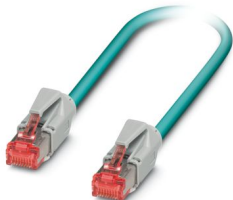
# NBC-R4AC/50,0-93E/R4AC - Network cable



1422651

<https://www.phoenixcontact.com/us/products/1422651>

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Network cable, RJ45/IP20 straight on RJ45/IP20 straight, cable length: 50 m, number of positions: 4, 100 Mbps, CAT5, Ethernet, 2x2xAWG26/7, SF/UTP, water blue RAL 5021

## 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                          | 1422651                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | ABNABD                         |
| GTIN                                 | 4055626311104                  |
| Weight per piece (including packing) | 2,108.38 g                     |
| Weight per piece (excluding packing) | 2,108.38 g                     |
| Country of origin                    | PL                             |

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## Technical data

### Product properties

|                     |                          |
|---------------------|--------------------------|
| Product type        | Data cable preassembled  |
| Product family      | RJ45 INDUSTRIAL IE4 CAT5 |
| Sensor type         | Ethernet                 |
| Number of positions | 4                        |
| Shielded            | yes                      |

### 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 speed                      | 100 Mbps              |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |
| Transmission speed                      | 100 Mbps              |

### Material specifications

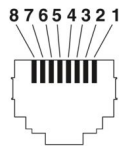
|                        |                    |
|------------------------|--------------------|
| Outer sheath, material | PUR                |
| Conductor material     | Bare Cu litz wires |

### Dimensions

|        |         |
|--------|---------|
| Width  | 13.4 mm |
| Height | 12.9 mm |
| Length | 44.7 mm |

### Connector

#### Connection 1

|                             |                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing         |  <p>Connector pin assignment plug RJ45</p> |
| Type                        | RJ45 Plug, straight, 4-position                                                                                               |
| Number of positions         | 4                                                                                                                             |
| Signal type/category        | Ethernet CAT5 (IEC 11801:2002), 100 Mbps                                                                                      |
| Insertion/withdrawal cycles | ≥ 750                                                                                                                         |
| Insertion force             | 30 N (per signal contact)                                                                                                     |

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|                                        |                           |
|----------------------------------------|---------------------------|
| Withdrawal force                       | 50 N (per signal contact) |
| Degree of pollution                    | 2                         |
| Material Contact                       | CuSn                      |
| Material Contact surface               | Ni/Au                     |
| Material Contact carrier               | PC                        |
| Material Housing                       | PA                        |
| Color (Housing)                        | gray                      |
| Flammability rating according to UL 94 | V2                        |
| Degree of protection                   | IP20                      |
| Ambient temperature (operation)        | -40 °C ... 60 °C          |

## Connection 2

|                                        |                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing                    |  <p>Connector pin assignment plug RJ45</p> |
| Type                                   | RJ45 Plug, straight, 4-position                                                                                              |
| Number of positions                    | 4                                                                                                                            |
| Signal type/category                   | Ethernet CAT5 (IEC 11801:2002), 100 Mbps                                                                                     |
| Insertion/withdrawal cycles            | ≥ 750                                                                                                                        |
| Insertion force                        | 30 N (per signal contact)                                                                                                    |
| Withdrawal force                       | 50 N (per signal contact)                                                                                                    |
| Degree of pollution                    | 2                                                                                                                            |
| Material Contact                       | CuSn                                                                                                                         |
| Material Contact surface               | Ni/Au                                                                                                                        |
| Material Contact carrier               | PC                                                                                                                           |
| Material Housing                       | PA                                                                                                                           |
| Color (Housing)                        | gray                                                                                                                         |
| Flammability rating according to UL 94 | V2                                                                                                                           |
| Degree of protection                   | IP20                                                                                                                         |
| Ambient temperature (operation)        | -40 °C ... 60 °C                                                                                                             |

## Cable/line

|              |         |
|--------------|---------|
| Cable length | 50.00 m |
|--------------|---------|

Ethernet flexible CAT5, 2-pair [93E]

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|                                               |                                                                                    |
|-----------------------------------------------|------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| UL AWM Style                                  | 21238 (80 °C / 600 V)                                                              |
| Number of positions                           | 4                                                                                  |
| Shielded                                      | yes                                                                                |
| Cable type                                    | Ethernet flexible CAT5, 2-pair [93E]                                               |
| Conductor structure                           | 2x2xAWG26/7, SF/UTP                                                                |
| AWG signal line                               | 26                                                                                 |
| Conductor cross section                       | 2x 2x 0.14 mm <sup>2</sup>                                                         |
| Wire diameter incl. insulation                | 0.95 mm ±0.05 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                                             |
| Twisted pairs                                 | 2 cores to the pair                                                                |
| Overall twist                                 | Two pairs with two fillers to the core                                             |
| Optical shield covering                       | 70 %                                                                               |
| Insulation resistance                         | ≥ 5 GΩ*km                                                                          |
| Loop resistance                               | ≤ 280.00 Ω/km                                                                      |
| Wave impedance                                | 100 Ω ±5 Ω (at 100 MHz)                                                            |
| Nominal voltage, cable                        | ≤ 100 V                                                                            |
| Test voltage Core/Core                        | 2000 V (50 Hz, 1 min.)                                                             |
| Test voltage Core/Shield                      | 2000.00 V (50 Hz, 1 min.)                                                          |
| 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 | 51 mm                                                                              |
| Halogen-free                                  | according to IEC 60754-1                                                           |
| Flame resistance                              | according to IEC 60332-1-2                                                         |
|                                               | in accordance with UN ECE-R 118.03                                                 |
|                                               | UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)                               |
|                                               | UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)                           |
| Resistance to oil                             | in accordance with IEC 60811-404                                                   |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)                                       |
|                                               | -30 °C ... 70 °C (Cable, flexible installation)                                    |

## Drawings

### Schematic diagram

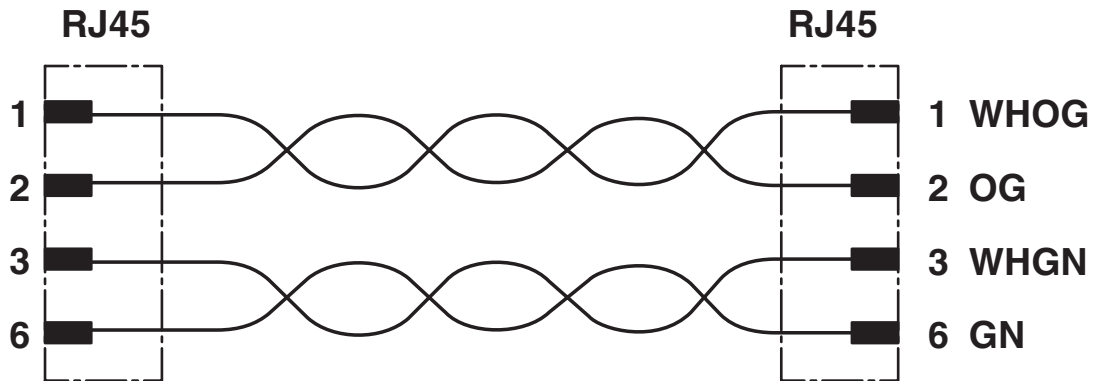


Connector pin assignment plug RJ45

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Circuit diagram



Contact assignment of RJ45 plugs

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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1422651>



**EAC**

Approval ID: 19060508

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060307 |
| ECLASS-15.0 | 27060307 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

### UNSPSC

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

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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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