

# NBC-R4AC/0,3-93F/R4AC - Network cable



1199417

<https://www.phoenixcontact.com/us/products/1199417>

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Network cable, degree of protection: IP20, cable length: 0.3 m, number of positions: 4, CAT5e, cable outlet: straight, Ethernet, 2x2xAWG24/7, SF/UTP, turquoise

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1199417       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB11          |
| Product key                          | ABNABA        |
| GTIN                                 | 4063151261542 |
| Weight per piece (including packing) | 31.73 g       |
| Weight per piece (excluding packing) | 31.73 g       |
| Customs tariff number                | 85444210      |
| Country of origin                    | US            |

## Technical data

### Product properties

|                      |                          |
|----------------------|--------------------------|
| Product type         | Data cable preassembled  |
| Product family       | RJ45 INDUSTRIAL PN4 CAT5 |
| 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 |
| Status display present | no |

### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 30 V AC |
| Nominal current $I_N$ | 1.5 A   |
| Transmission medium   | Copper  |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 750$ |
|-----------------------------|------------|

### Material specifications

|                                        |     |
|----------------------------------------|-----|
| Flammability rating according to UL 94 | V0  |
| Outer sheath, material                 | TPE |

### Connector

#### Connection 1

|                                 |                        |
|---------------------------------|------------------------|
| Type                            | Plug straight RJ45     |
| Handle color                    | black                  |
| Material                        | (Contact)              |
|                                 | Gold (Contact surface) |
|                                 | PVC (Housing)          |
| Insertion/withdrawal cycles     | $\geq 750$             |
| Degree of protection            | IP20                   |
| Ambient temperature (operation) | -40 °C ... 85 °C       |

#### Connection 2

|              |                    |
|--------------|--------------------|
| Type         | Plug straight RJ45 |
| Handle color | black              |

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|                                 |                        |
|---------------------------------|------------------------|
| Material                        | (Contact)              |
|                                 | Gold (Contact surface) |
|                                 | PVC (Housing)          |
| Insertion/withdrawal cycles     | ≥ 750                  |
| Degree of protection            | IP20                   |
| Ambient temperature (operation) | -40 °C ... 85 °C       |

## Cable/line

|              |        |
|--------------|--------|
| Cable length | 0.30 m |
|--------------|--------|

### Highly flexible Ethernet CAT5e [93F]

|                                 |                                                                                                                                  |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing             |                                               |
| UL AWM Style                    | 2463 (80 °C / 600 V)                                                                                                             |
| Number of positions             | 4                                                                                                                                |
| Shielded                        | yes                                                                                                                              |
| Cable type                      | Highly flexible Ethernet CAT5e [93F]                                                                                             |
| Conductor structure             | 2x2xAWG24/7, SF/UTP                                                                                                              |
| Conductor structure signal line | 7x 0.20 mm (7x32)                                                                                                                |
| AWG signal line                 | 24                                                                                                                               |
| Conductor cross section         | 2x 2x 0.2 mm²                                                                                                                    |
| Wire diameter incl. insulation  | 1.2 mm                                                                                                                           |
| External cable diameter         | 6.70 mm ±0.25 mm                                                                                                                 |
| Outer sheath, material          | TPE                                                                                                                              |
| External sheath, color          | turquoise                                                                                                                        |
| Conductor material              | Tin-plated Cu litz wires                                                                                                         |
| Material wire insulation        | PE                                                                                                                               |
| Single wire, color              | white/orange-orange, white/green-green                                                                                           |
| Twisted pairs                   | 2 cores to the pair                                                                                                              |
| Overall twist                   | 2 pairs to the core                                                                                                              |
| Optical shield covering         | 75 %                                                                                                                             |
| Wave impedance                  | 100 Ω ±15 Ω (at 100 MHz)                                                                                                         |
| Cable impedance                 | 100 Ω ±15 Ω (at 1 ... 100 MHz)                                                                                                   |
| Nominal voltage, cable          | 600 V                                                                                                                            |
| Test voltage                    | 2000 V                                                                                                                           |
| Dynamic load capacity (bending) | Max. bending cycles: 1000000, Bending radius: 10 x D, Traversing path: 0.23 m, Traversing rate: 1.5 m/s, Acceleration: 20.5 m/s² |

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|                                       |                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                       | Max. bending cycles: 20000000, Bending radius: 20 X D (126 cycles/min. at 20 °C)                                                   |
| Dynamic load capacity (torsion)       | Torsion: 360 °/m (1 lb. load), Torsion cycles: 3000000, Torsional frequency: 71 cycles/min, Ambient temperature (operation): 20 °C |
| Near end crosstalk attenuation (NEXT) | 50 dB (with 100 MHz (IEC 62153-4-9))                                                                                               |
| Return attenuation (RL)               | 20 dB (at 10 MHz (+6LOG))                                                                                                          |
|                                       | 26 dB (at 20 MHz)                                                                                                                  |
|                                       | 26 dB (at 100 MHz (-5LOG))                                                                                                         |
| Flame resistance                      | VW-1                                                                                                                               |
| Other resistance                      | Resistant to welding splashes (Abrasion and oil resistance)                                                                        |
|                                       | UV resistant (CMX outdoor)                                                                                                         |
| Ambient temperature (operation)       | -40 °C ... 80 °C (Cable, flexible installation)                                                                                    |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Degree of protection            | IP20 (RJ45 connector)             |
|                                 | IP20                              |
| Ambient temperature (operation) | -40 °C ... 85 °C (RJ45 connector) |

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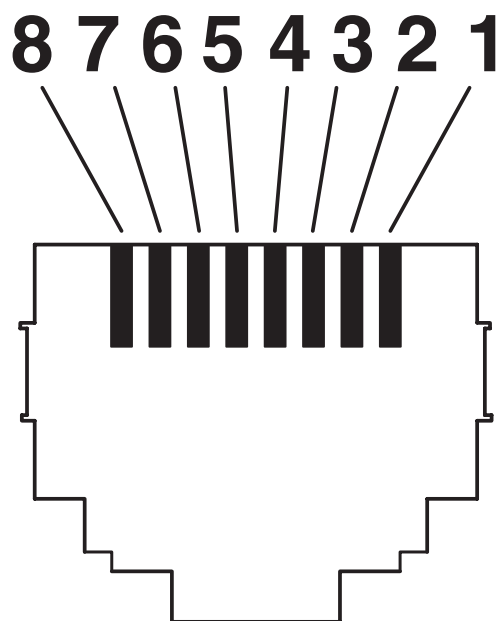
## Drawings

Dimensional drawing



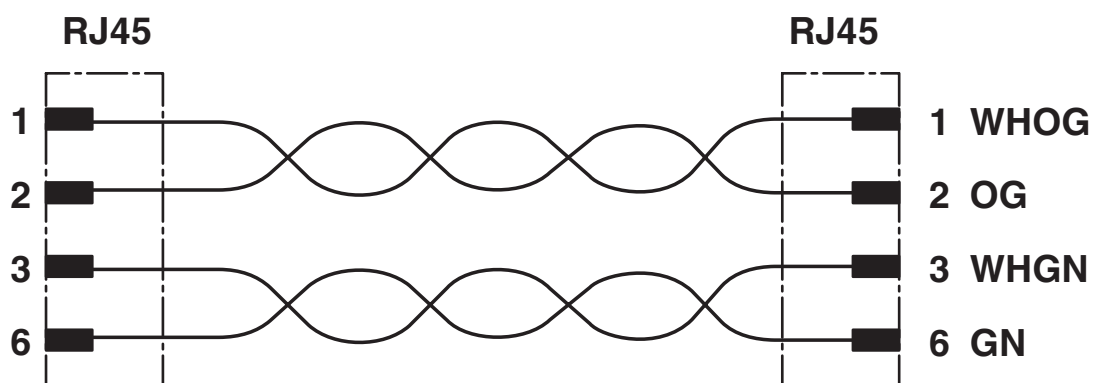
RJ45 connector, IP20

Schematic diagram



Connector pin assignment plug RJ45

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/1199417>

|  <b>UL Listed</b><br>Approval ID: File E335024 |                                |                                |                   |                               |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
|                                                                                                                                 | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine                                                                                                                           |                                |                                |                   |                               |
|                                                                                                                                 | 60 V                           | 0.5 A                          | -                 | -                             |

|  <b>cUL Listed</b><br>Approval ID: File E335024 |                                |                                |                   |                               |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
|                                                                                                                                  | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine                                                                                                                            |                                |                                |                   |                               |
|                                                                                                                                  | 60 V                           | 0.5 A                          | -                 | -                             |

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