

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



1199410

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Network cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, CAT5e, cable outlet: straight, Ethernet

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1199410       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB11          |
| Product key                          | ABNABA        |
| GTIN                                 | 4063151262105 |
| Weight per piece (including packing) | 22.22 g       |
| Weight per piece (excluding packing) | 292.8 g       |
| Country of origin                    | US            |

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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                |

### Electrical properties

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

### 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                   |

#### Connection 2

|                                 |                        |
|---------------------------------|------------------------|
| 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       |

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## Cable/line

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

### Highly flexible Ethernet CAT5e [93F]

|   |  |
|---|--|
| Dimensional drawing                             |  |
| Shielded  | yes  |
| UL AWM Style                                    | 2463 (80 °C / 600 V)   |
| Cable type                                      | Highly flexible Ethernet CAT5e   |
| Cable type (abbreviation)                       | 93F  |
| Signal type/category                            | Ethernet CAT5e (TIA 568B)  |
| Cable structure                                 | 2x2xAWG24/7, SF/UTP  |
| External cable diameter                         | 6.70 mm ±0.25 mm   |
| Outer sheath, material                          | TPE  |
| External sheath, color                          | Teal   |
| Conductor material                              | Tin-plated Cu litz wires   |
| Conductor structure signal line                 | 7x 0.20 mm (7x32)  |
| AWG signal line                                 | 24   |
| Conductor cross section                         | 2x 2x 0.2 mm <sup>2</sup>  |
| Material wire insulation                        | PE   |
| Wire diameter incl. insulation                  | 1.2 mm   |
| Single wire, color                              | white/orange-orange, white/green-green   |
| Twisted pairs                                   | 2 cores to the pair  |
| Overall twist                                   | 2 pairs to the core  |
| Shielding                                       | Aluminum-lined polyester foil, tinned copper braided shield                        |
| Optical shield covering                         | 75 %   |
| Nominal voltage, cable                          | 600 V  |
| Test voltage, cable                             | 2000 V   |
| Wave impedance                                  | 100 Ω ±15 Ω (at 100 MHz)   |
| Cable impedance                                 | 100 Ω ±15 Ω (at 1 ... 100 MHz)   |
| Number of bending cycles                        | 1000000  |
| Minimum bending radius, drag chain applications | 10 x D   |
| Traversing path                                 | 0.23 m   |
| Traversing rate                                 | 1.5 m/s  |
| Acceleration                                    | 20.5 m/s <sup>2</sup>  |
| Number of bending cycles                        | 20000000   |
| Minimum bending radius, drag chain applications | 20 X D   |

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|                                       |   |
|---------------------------------------|---|
| Torsion force                         | 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) |

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

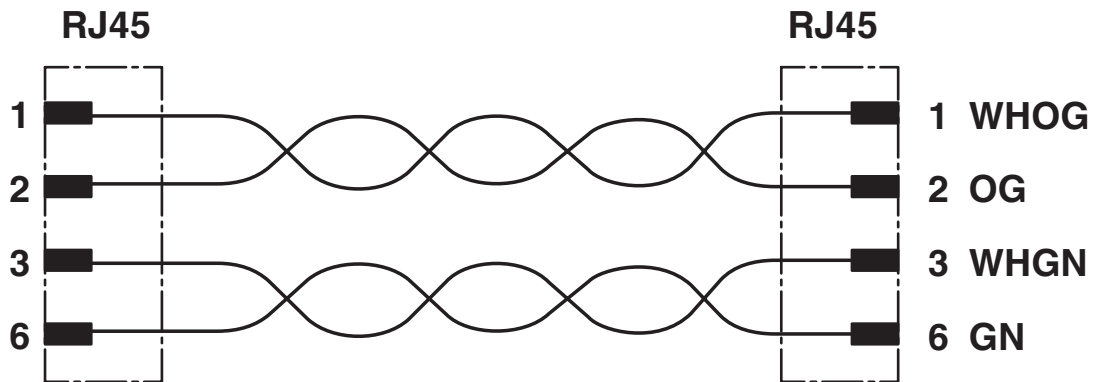


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## Drawings

Circuit diagram



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Schematic diagram



Connector pin assignment plug RJ45

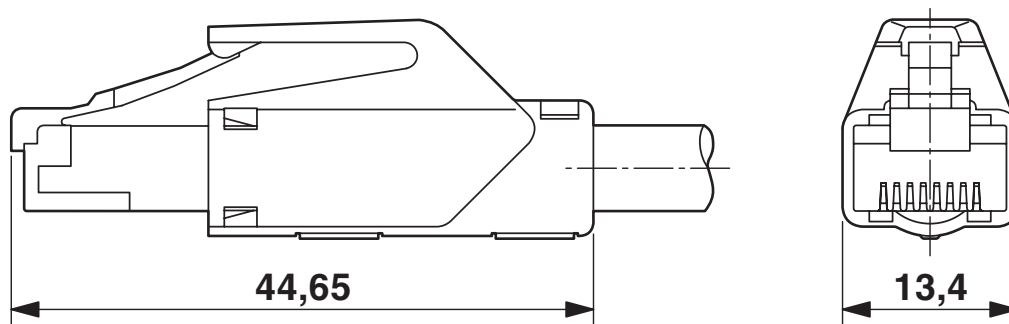
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Dimensional drawing



RJ45 connector, IP20

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## Approvals

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|  <b>UL Listed</b><br>Approval ID: File E335024 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|   | 60 V                  | 0.5 A                 | -                 | -                           |

|  <b>cUL Listed</b><br>Approval ID: File E335024 |                       |                       |                   |                             |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|  | 60 V                  | 0.5 A                 | -                 | -                           |

| <b>cULus Listed</b> |  |  |  |  |
|---------------------|--|--|--|--|
|---------------------|--|--|--|--|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27469090 |
| ECLASS-12.0 | 27469090 |
| ECLASS-13.0 | 27469090 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002943 |
|----------|----------|

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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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