

# NBC-R4AQ/10,0-93K/OE - Bus system cable

1621318

<https://www.phoenixcontact.com/us/products/1621318>



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Bus system cable, degree of protection: IP20, cable length: 10 m, number of positions: 4, 100 Mbps, CAT5, cable outlet: straight, color: gray, Sercos, 1x4xAWG22/7, SF/TQ, signal red RAL 3020



## 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                          | 1621318                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | ABNABA                         |
| GTIN                                 | 4046356909334                  |
| Weight per piece (including packing) | 698.376 g                      |
| Weight per piece (excluding packing) | 698.376 g                      |
| Country of origin                    | PL                             |

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## Technical data

### Product properties

|                      |                          |
|----------------------|--------------------------|
| Product type         | Data cable preassembled  |
| Product family       | RJ45 INDUSTRIAL PN4 CAT5 |
| Sensor type          | Sercos                   |
| Number of positions  | 4                        |
| No. of cable outlets | 1                        |
| Shielded             | yes                      |
| Cable outlet         | straight                 |

### Insulation characteristics

|                     |   |
|---------------------|---|
| Degree of pollution | 1 |
|---------------------|---|

### Electrical properties

|                       |           |
|-----------------------|-----------|
| Rated voltage (III/3) | 72 V (DC) |
| Transmission medium   | Copper    |
| Transmission speed    | 100 Mbps  |
| Transmission speed    | 100 Mbps  |

### Mechanical properties

|                                     |         |
|-------------------------------------|---------|
| Mechanical data                     |         |
| Insertion force per signal contact  | 30.00 N |
| Extraction force per signal contact | 50 N    |

### Material specifications

|  |                          |
|--|--------------------------|
| Color                                  | gray                     |
| Flammability rating according to UL 94 | V0                       |
| Outer sheath, material                 | PVC                      |
| Conductor material                     | Tin-plated Cu litz wires |

### Connector

|                             |                    |
|-----------------------------|--------------------|
| Connection 1                |                    |
| Type                        | Plug straight RJ45 |
| Shielded                    | yes                |
| Handle color                | black              |
| Insertion/withdrawal cycles | ≥ 750              |
| Degree of protection        | IP20               |

|              |                |
|--------------|----------------|
| Connection 2 |                |
| Type         | free cable end |

### Cable/line

|              |         |
|--------------|---------|
| Cable length | 10.00 m |
|--------------|---------|

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Sercos III [93K]

Dimensional drawing



|   |   |
|---|---|
| Cable weight                                  | 68 kg/km  |
| UL AWM Style                                  | 21694 (60 °C / 600 V)                             |
| Number of positions                           | 4   |
| Shielded                                      | yes   |
| Cable type                                    | Sercos III [93K]                                  |
| Conductor structure                           | 1x4xAWG22/7, SF/TQ                                |
| Signal runtime                                | 5.3 ns/m  |
| Conductor structure signal line               | 7x 0.25 mm  |
| AWG signal line                               | 22  |
| Conductor cross section                       | 4x 0.34 mm <sup>2</sup>                           |
| Wire diameter incl. insulation                | approx. 1.55 mm                                   |
| External cable diameter                       | 6.50 mm ±0.2 mm                                   |
| Outer sheath, material                        | PVC   |
| External sheath, color                        | signal red RAL 3020                               |
| Conductor material                            | Tin-plated Cu litz wires                          |
| Material wire insulation                      | PE  |
| Single wire, color                            | white, yellow, blue, orange                       |
| Thickness, outer sheath                       | approx. 0.90 mm                                   |
| Type of pair shielding                        | Aluminum-lined polyester foil                     |
| Overall twist                                 | Star quad   |
| Max. conductor resistance                     | ≤ 120 Ω/km  |
| Insulation resistance                         | ≥ 0.5 GΩ*km                                       |
| Coupling resistance                           | ≤ 20.00 mΩ/m (at 10 Hz)                           |
| Wave impedance                                | 100 Ω ±15 Ω (at 100 MHz)                          |
| Nominal voltage, cable                        | 600 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    | 3 x D   |
| Minimum bending radius, flexible installation | 7 x D   |
| Smallest bending radius, fixed installation   | 20 mm   |
| Smallest bending radius, movable installation | 46 mm   |
| Flame resistance                              | according to UL 1685 (CSA FT 4)                   |
| Resistance to oil                             | Resistant to oil to a limited extent              |
| Other resistance                              | UV resistant (according to UL 1581, Section 1200) |

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|                                    |   |
|------------------------------------|---|
| Ambient temperature (operation)    | -40 °C ... 70 °C (cable, fixed installation)    |
|                                    | -40 °C ... 70 °C (Cable, flexible installation) |
| Ambient temperature (installation) | -20 °C ... 60 °C                                |

## Environmental and real-life conditions

### Ambient conditions

|                                 |  |
|---------------------------------|--|
| Degree of protection            | IP20   |
|                                 | IP20   |
| Ambient temperature (operation) | -10 °C ... 60 °C (cable, fixed installation)   |
|                                 | -5 °C ... 50 °C (Cable, flexible installation) |

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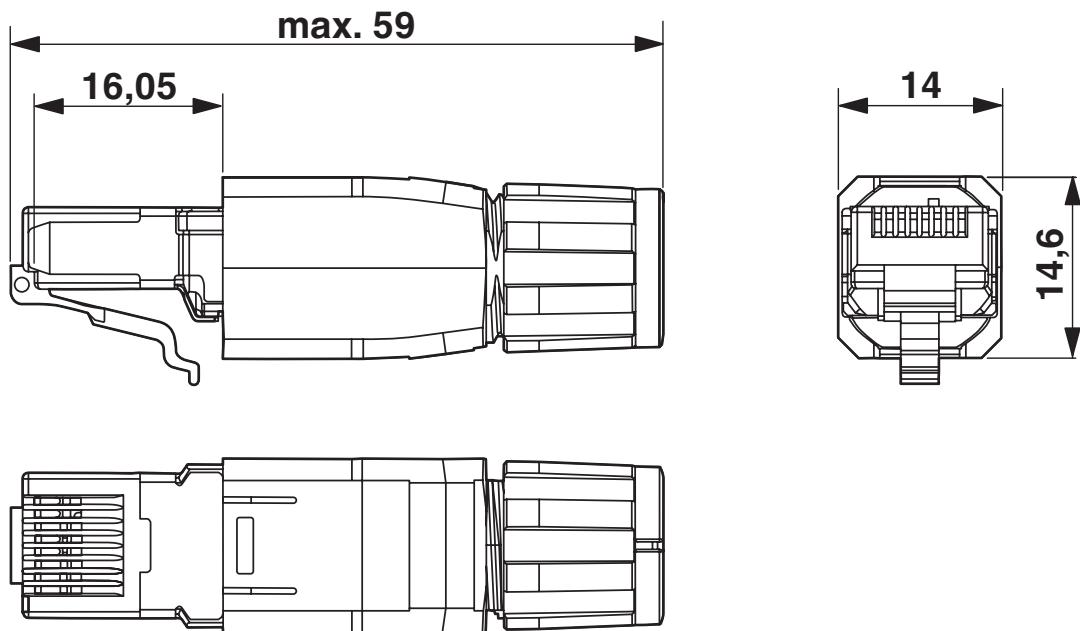
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## Drawings

Dimensional drawing



RJ45 connector, IP20

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1621318>



**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.) | 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9) |
|-------------------------------------|--|

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