

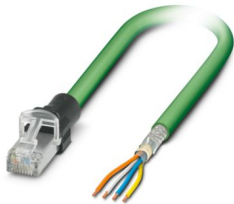
# NBC-R4ACS/0,3-93B/OE - Patch cable



1112878

<https://www.phoenixcontact.com/us/products/1112878>

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Patch cable, degree of protection: IP20, cable length: 0.3 m, number of positions: 4, 100 Mbps, CAT5, material: PP, connection method: Pierce connection, cable outlet: straight, PROFINET

## Your advantages

- PVC cable for flexible installations
- CE, UL, WEEE, EAC
- 360° shielding
- High shock and vibration resistance
- Robust molding
- Perfect for industrial applications

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1112878       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB11          |
| Product key                          | ABNABA        |
| GTIN                                 | 4063151033651 |
| Weight per piece (including packing) | 37.5 g        |
| Weight per piece (excluding packing) | 32.727 g      |
| Customs tariff number                | 85444210      |
| Country of origin                    | PL            |

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## Technical data

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Data cable preassembled |
| Sensor type         | PROFINET                |
| Number of positions | 4                       |
| Shielded            | yes                     |
| Cable outlet        | straight                |

### Insulation characteristics

|                      |   |
|----------------------|---|
| Overvoltage category | I |
| Degree of pollution  | 2 |

### Electrical properties

|   |          |
|---|----------|
| Rated voltage (III/2)                   | 72 V     |
| Rated current                           | 1.75 A   |
| Insulation resistance                   | > 1 TΩ   |
| Contact resistance                      | < 20 mΩ  |
| Transmission characteristics (category) | CAT5     |
| Transmission speed                      | 100 Mbps |

### Mechanical properties

#### Mechanical data

|                                     |         |
|-------------------------------------|---------|
| Insertion force per signal contact  | 50.00 N |
| Extraction force per signal contact | 30 N    |

### Material specifications

|  |       |
|--|-------|
| Flammability rating according to UL 94 | V2    |
| Contact material                       | CuSn6 |
| Contact surface material               | Ni/Au |
| Contact carrier material               | PC    |
| Housing material                       | PP    |

### Dimensions

|        |         |
|--------|---------|
| Width  | 13.8 mm |
| Height | 14.8 mm |
| Length | 44.2 mm |

### Connection data

#### Connection technology

|                   |                   |
|-------------------|-------------------|
| Connection method | Pierce connection |
|-------------------|-------------------|

#### Conductor connection

|                   |                   |
|-------------------|-------------------|
| Connection method | Pierce connection |
|-------------------|-------------------|

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## Connector

### Connection 1

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

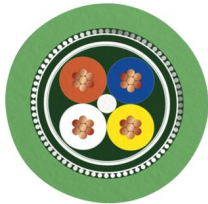
### Connection 2

|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

## Cable/line

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

### PROFINET PVC stranded CAT5 [93B]

|                                 |   |
|---------------------------------|---|
| Dimensional drawing             |     |
| Shielded                        | yes   |
| UL AWM Style                    | 21694   |
| Cable weight                    | 67 kg/km  |
| Cable type                      | PROFINET PVC stranded CAT5  |
| Short symbol                    | 2YY(ST)CY   |
| Cable type (abbreviation)       | 93B   |
| Signal type/category            | PROFINET CAT5 (IEC 11801), 100 Mbps<br>EtherCAT <sup>®</sup> CAT5 (IEC 11801), 100 Mbps |
| Cable structure                 | 1x4xAWG22/7, SF/TQ  |
| External cable diameter         | 6.50 mm ±0.2 mm   |
| Outer sheath, material          | PVC   |
| External sheath, color          | green RAL 6018  |
| Thickness, outer sheath         | approx. 0.90 mm   |
| Material, inner sheath          | PVC   |
| Conductor material              | Tin-plated Cu litz wires  |
| Conductor structure signal line | 7x 0.25 mm  |
| AWG signal line                 | 22  |
| Conductor cross section         | 4x 0.34 mm <sup>2</sup>   |
| Material wire insulation        | PE  |
| Wire diameter incl. insulation  | 1.55 mm   |

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|   |  |
|---|--|
| Single wire, color                            | white, yellow, blue, orange                        |
| Overall twist                                 | Star quad  |
| Shielding                                     | Aluminum-coated foil, tinned copper braided shield |
| Optical shield covering                       | 85 %   |
| 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.)                          |
| Cable insulation resistance                   | ≥ 500 MΩ*km  |
| Coupling resistance                           | ≤ 20.00 mΩ/m (at 10 MHz)                           |
| Wave impedance                                | 100 Ω ±15 Ω (at 100 MHz)                           |
| Loop resistance                               | ≤ 120.00 Ω/km                                      |
| Signal runtime                                | 5.3 ns/m   |
| Signal speed                                  | 0.66 c   |
| Minimum bending radius, fixed installation    | 3 x D  |
| Minimum bending radius, flexible installation | 7 x D  |
| Damping                                       | 2.1 dB (with 1 MHz)                                |
|   | 4 dB (at 4 MHz)                                    |
|   | 6.3 dB (at 10 MHz)                                 |
|   | 8 dB (at 16 MHz)                                   |
|   | 9 dB (at 20 MHz)                                   |
|   | 11.4 dB (at 31.25 MHz)                             |
|   | 16.5 dB (at 62.5 MHz)                              |
|   | 21.3 dB (at 100 MHz)                               |
| Near end crosstalk attenuation (NEXT)         | 80 dB (with 1 MHz)                                 |
|   | 76 dB (at 4 MHz)                                   |
|   | 70 dB (at 10 MHz)                                  |
|   | 65 dB (at 16 MHz)                                  |
|   | 63 dB (at 20 MHz)                                  |
|   | 60 dB (at 31.25 MHz)                               |
|   | 55 dB (at 62.5 MHz)                                |
|   | 50 dB (at 100 MHz)                                 |
| Resistance to oil                             | Resistant to oil to a limited extent               |
| Flame resistance                              | according to UL 1685 (CSA FT 4)                    |
| Other resistance                              | UV resistant (According to UL 1581, Section 1200)  |
| Ambient temperature (operation)               | -40 °C ... 70 °C (Cable, flexible installation)    |
|   | -40 °C ... 70 °C (cable, fixed installation)       |

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

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Standards/specifications

IEC 60603-7

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060308 |
| ECLASS-12.0 | 27060308 |
| ECLASS-13.0 | 27060307 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002599 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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