

# NBC-R4ACS/0,5-93B/R4ACT - Patch cable



1113304

<https://www.phoenixcontact.com/us/products/1113304>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Patch cable, degree of protection: IP20, cable length: 0.5 m, number of positions: 4, 100 Mbps, CAT5, material: PP, connection method: Pierce connection, cable outlet: straight, PROFINET

## Your advantages

- Compact angle
- Perfect for industrial applications
- Worldwide approval with CE, UL, WEEE, and EAC
- Secure connection and disconnection with reliable locking clip protection
- Ideal EMC properties, thanks to 360° shielding
- Simultaneous power transmission with PoE++
- Resistant to shock and vibrations, thanks to robust molding
- High-speed data transmission with up to 100 Mbps (CAT5)
- Compact angle

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1113304       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB11          |
| Product key                          | ABNABA        |
| GTIN                                 | 4063151036447 |
| Weight per piece (including packing) | 60.1 g        |
| Weight per piece (excluding packing) | 52.139 g      |
| Customs tariff number                | 85444210      |
| Country of origin                    | PL            |

# NBC-R4ACS/0,5-93B/R4ACT - Patch cable



1113304

<https://www.phoenixcontact.com/us/products/1113304>

## Technical data

### Product properties

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

### Data management status

|                  |    |
|------------------|----|
| Article revision | 02 |
|------------------|----|

### 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    |
| Housing material                       | PP    |
| Contact material                       | CuSn6 |
| Contact surface material               | Ni/Au |
| Contact carrier material               | PC    |

### Dimensions

|        |         |
|--------|---------|
| Width  | 13.8 mm |
| Height | 31.2 mm |
| Length | 34 mm   |

### Connection data

#### Connection technology

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

# NBC-R4ACS/0,5-93B/R4ACT - Patch cable



1113304

<https://www.phoenixcontact.com/us/products/1113304>

## Conductor connection

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

## Connector

### Connection 1

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

### Connection 2

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

## Cable/line

|              |        |
|--------------|--------|
| Cable length | 0.50 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® 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                                                             |

# NBC-R4ACS/0,5-93B/R4ACT - Patch cable



1113304

<https://www.phoenixcontact.com/us/products/1113304>

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

|                          |             |
|--------------------------|-------------|
| Standards/specifications | IEC 60603-7 |
|--------------------------|-------------|

# NBC-R4ACS/0,5-93B/R4ACT - Patch cable



1113304

<https://www.phoenixcontact.com/us/products/1113304>

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

# NBC-R4ACS/0,5-93B/R4ACT - Patch cable



1113304

<https://www.phoenixcontact.com/us/products/1113304>

## 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%               |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

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