

# NBC- 10,0-94B/FS SCO US - Network cable



1408746

<https://www.phoenixcontact.com/us/products/1408746>

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.



Network cable, Ethernet CAT5 (1 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Aluminum-coated foil, tinned copper braided shield), free cable end, on Socket straight M12, coding: A / IP67, cable length: 10 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1408746                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF15                           |
| Product key                          | BF1IHB                         |
| GTIN                                 | 4046356828604                  |
| Weight per piece (including packing) | 497.4 g                        |
| Weight per piece (excluding packing) | 22.22 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | US                             |

## Technical data

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Data cable preassembled |
| Sensor type         | Ethernet                |
| Number of positions | 8                       |
| Application         | Standard, U.S. cables   |
| Shielded            | yes                     |
| Coding              | A                       |

### Interfaces

|                      |                                            |
|----------------------|--------------------------------------------|
| Bus system           | Ethernet                                   |
| Signal type/category | Ethernet CAT5 (based on IEC 11801), 1 Gbps |

### Signaling

|                        |    |
|------------------------|----|
| Status display         | No |
| Status display present | No |

### Electrical properties

|                                         |                       |
|-----------------------------------------|-----------------------|
| Nominal voltage $U_N$                   | 48 V AC               |
|                                         | 60 V DC               |
| Nominal current $I_N$                   | 2 A                   |
| Transmission medium                     | Copper                |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |

### Material specifications

|                               |                                             |
|-------------------------------|---------------------------------------------|
| Seal material                 | NBR                                         |
| Material of grip body         | TPU, hardly inflammable, self-extinguishing |
| Contact material              | CuSn                                        |
| Contact surface material      | Ni/Au                                       |
| Contact carrier material      | TPU GF                                      |
| Material for screw connection | Zinc die-cast, nickel-plated                |

### Connector

#### Connection 1

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

#### Connection 2

|                      |                            |
|----------------------|----------------------------|
| Type                 | Socket straight M12 / IP67 |
| Coding type          | A (Standard)               |
| Degree of protection | IP67                       |

### Cable/line

|              |      |
|--------------|------|
| Cable length | 10 m |
|--------------|------|

# NBC- 10,0-94B/FS SCO US - Network cable



1408746

<https://www.phoenixcontact.com/us/products/1408746>

Ethernet flexible CAT5, 4-pair [94B]

|                                               |                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------|
| Dimensional drawing                           |                                                                            |
| Cable weight                                  | 47 kg/km                                                                   |
| UL AWM Style                                  | 20963 (80°C/30 V)                                                          |
| Number of positions                           | 8                                                                          |
| Shielded                                      | yes                                                                        |
| Cable type                                    | Ethernet flexible CAT5, 4-pair [94B]                                       |
| Conductor structure                           | 4x2xAWG26/7, SF/UTP                                                        |
| Signal runtime                                | 5.3 ns/m                                                                   |
| Conductor structure signal line               | 7x 0.16 mm                                                                 |
| AWG signal line                               | 26                                                                         |
| Conductor cross section                       | 4x 2x 0.14 mm <sup>2</sup>                                                 |
| Wire diameter incl. insulation                | 0.96 mm                                                                    |
| External cable diameter                       | 6.40 mm ±0.2 mm                                                            |
| Outer sheath, material                        | PUR                                                                        |
| External sheath, color                        | water blue RAL 5021                                                        |
| Conductor material                            | Bare Cu litz wires                                                         |
| Material wire insulation                      | Foamed PE                                                                  |
| Single wire, color                            | white/blue-blue, white/orange-orange, white/green-green, white/brown-brown |
| Thickness, outer sheath                       | 1.05 mm                                                                    |
| Twisted pairs                                 | 2 cores to the pair                                                        |
| Overall twist                                 | 4 pairs for core                                                           |
| Optical shield covering                       | 70 %                                                                       |
| Insulation resistance                         | ≥ 5 GΩ*km                                                                  |
| Coupling resistance                           | ≤ 100.00 mΩ/m (at 10 MHz)                                                  |
| Loop resistance                               | ≤ 290.00 Ω/km                                                              |
| Wave impedance                                | 100 Ω ±5 Ω (at 100 MHz)                                                    |
| Cable capacity                                | 48 nF/km (at 1 kHz)                                                        |
| Nominal voltage, cable                        | ≤ 100 V                                                                    |
| Test voltage Core/Core                        | 700 V (50 Hz, 1 min.)                                                      |
| Test voltage Core/Shield                      | 700.00 V (50 Hz, 1 min.)                                                   |
| Minimum bending radius, fixed installation    | 4 x D                                                                      |
| Minimum bending radius, flexible installation | 8 x D                                                                      |
| Smallest bending radius, fixed installation   | 26 mm                                                                      |
| Smallest bending radius, movable installation | 52 mm                                                                      |

# NBC- 10,0-94B/FS SCO US - Network cable



1408746

<https://www.phoenixcontact.com/us/products/1408746>

|                                                        |                                                 |
|--------------------------------------------------------|-------------------------------------------------|
| Tensile strength                                       | ≤ 100 N                                         |
| Near end crosstalk attenuation (NEXT)                  | 71.3 dB (with 1 MHz)                            |
|                                                        | 62.3 dB (at 4 MHz)                              |
|                                                        | 56.3 dB (at 10 MHz)                             |
|                                                        | 53.2 dB (at 16 MHz)                             |
|                                                        | 51.8 dB (at 20 MHz)                             |
|                                                        | 48.9 dB (at 31.25 MHz)                          |
|                                                        | 44.4 dB (at 62.5 MHz)                           |
|                                                        | 41.3 dB (at 100 MHz)                            |
| Power-summated near end crosstalk attenuation (PSNEXT) | 62.3 dB (with 1 MHz)                            |
|                                                        | 53.3 dB (at 4 MHz)                              |
|                                                        | 47.3 dB (at 10 MHz)                             |
|                                                        | 44.2 dB (at 16 MHz)                             |
|                                                        | 42.8 dB (at 20 MHz)                             |
|                                                        | 39.9 dB (at 31.25 MHz)                          |
|                                                        | 35.4 dB (at 62.5 MHz)                           |
|                                                        | 32.3 dB (at 100 MHz)                            |
| Return attenuation (RL)                                | 23 dB (at 4 MHz)                                |
|                                                        | 24.1 dB (at 8 MHz)                              |
|                                                        | 25 dB (at 10 MHz)                               |
|                                                        | 25 dB (at 16 MHz)                               |
|                                                        | 25 dB (at 20 MHz)                               |
|                                                        | 23.6 dB (at 31.25 MHz)                          |
|                                                        | 21.5 dB (at 62.5 MHz)                           |
|                                                        | 20.1 dB (at 100 MHz)                            |
| Shield attenuation                                     | 3.2 dB (with 1 MHz)                             |
|                                                        | 6 dB (at 4 MHz)                                 |
|                                                        | 9.5 dB (at 10 MHz)                              |
|                                                        | 12.1 dB (at 16 MHz)                             |
|                                                        | 13.6 dB (at 20 MHz)                             |
|                                                        | 17.1 dB (at 31.25 MHz)                          |
|                                                        | 24.8 dB (at 62.5 MHz)                           |
|                                                        | 32 dB (at 100 MHz)                              |
| Halogen-free                                           | according to IEC 60754-1                        |
| Flame resistance                                       | according to IEC 60332-1-2                      |
| Resistance to oil                                      | in accordance with EN 60811-2-1                 |
| Ambient temperature (operation)                        | -40 °C ... 80 °C (cable, fixed installation)    |
|                                                        | -20 °C ... 80 °C (Cable, flexible installation) |
| Ambient temperature (installation)                     | -20 °C ... 80 °C                                |

## Environmental and real-life conditions

### Ambient conditions

IP65

# NBC- 10,0-94B/FS SCO US - Network cable



1408746

<https://www.phoenixcontact.com/us/products/1408746>

|                                 |                                  |
|---------------------------------|----------------------------------|
| Degree of protection            | IP67                             |
|                                 | IP65/IP67                        |
| Ambient temperature (operation) | -25 °C ... 85 °C (M12 connector) |

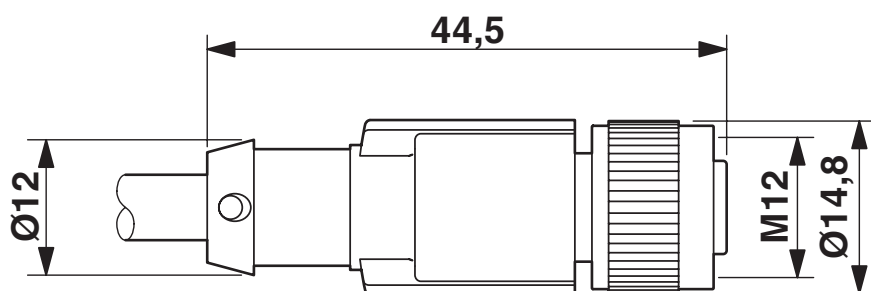
## Standards and regulations

M12

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-101 |

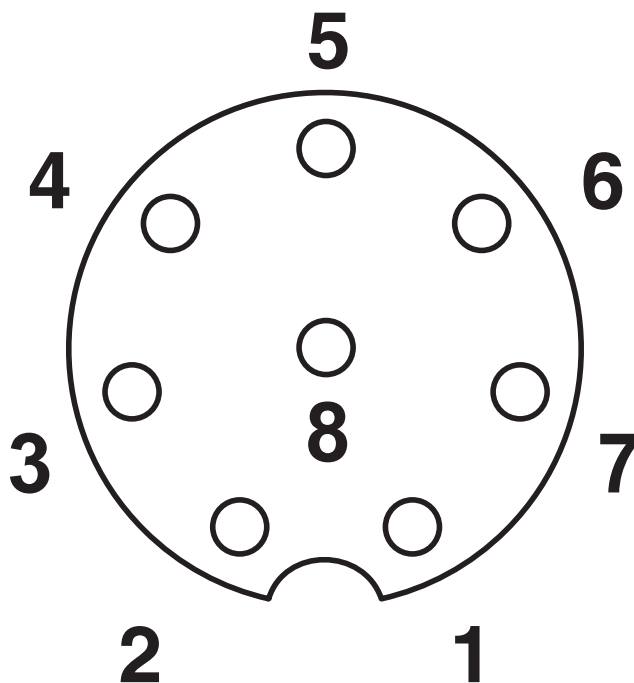
## Drawings

Dimensional drawing



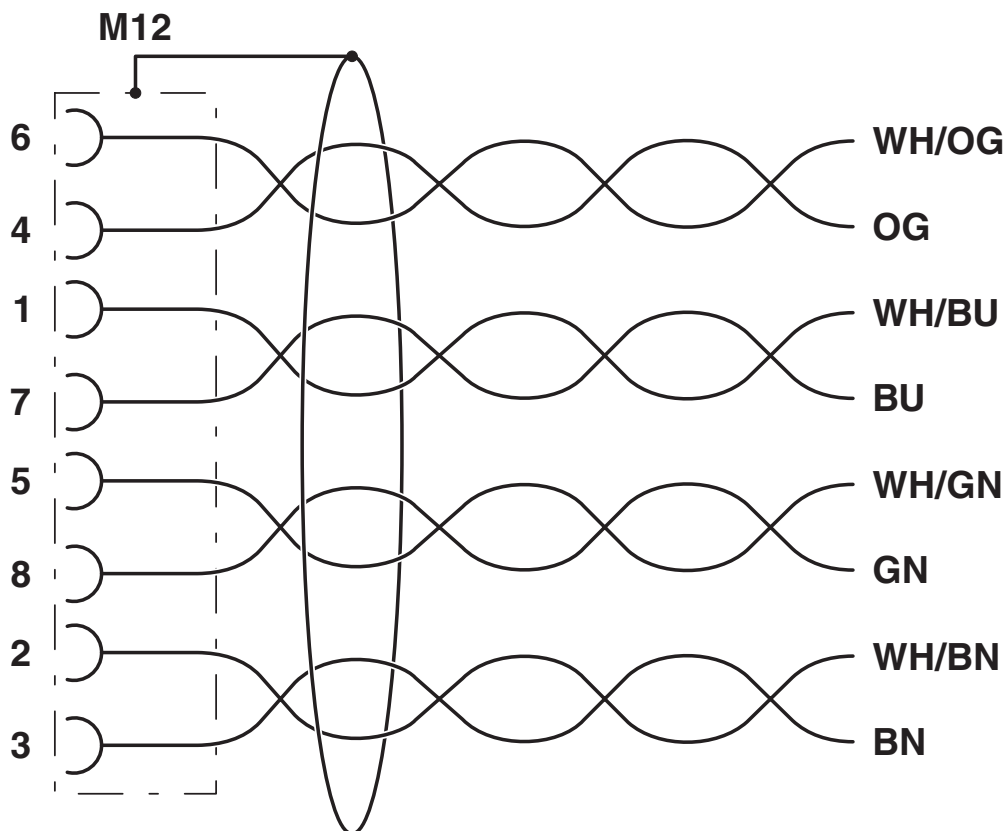
M12 x 1 socket, straight, shielded

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

Circuit diagram



# NBC- 10,0-94B/FS SCO US - Network cable



1408746

<https://www.phoenixcontact.com/us/products/1408746>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1408746>

|                                                                                   |                            |                                |                                |                               |
|-----------------------------------------------------------------------------------|----------------------------|--------------------------------|--------------------------------|-------------------------------|
|  | <b>UL Recognized</b>       |                                |                                |                               |
|                                                                                   | Approval ID: FILE E 335024 |                                |                                |                               |
|                                                                                   |                            | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG             |
|                                                                                   |                            | 30 V                           | 1.5 A                          | -                             |
|                                                                                   |                            |                                |                                | Cross section mm <sup>2</sup> |
|                                                                                   |                            |                                |                                | -                             |

|                                                                                   |                                   |  |  |  |
|-----------------------------------------------------------------------------------|-----------------------------------|--|--|--|
|  | <b>EAC-RoHS</b>                   |  |  |  |
|                                                                                   | Approval ID: RU D-DE.HB35.B.00387 |  |  |  |

# NBC- 10,0-94B/FS SCO US - Network cable



1408746

<https://www.phoenixcontact.com/us/products/1408746>

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

1408746

<https://www.phoenixcontact.com/us/products/1408746>

Environmental product compliance

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                               |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                               |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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)