

# NBC-M12MSD/ 5,0-93E - Network cable



1407358

<https://www.phoenixcontact.com/us/products/1407358>

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 (100 Mbps), 4-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12, coding: D / IP67, on free cable end, cable length: 5 m

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1407358       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF04          |
| Product key                          | AF1CJI        |
| GTIN                                 | 4046356774864 |
| Weight per piece (including packing) | 229.8 g       |
| Weight per piece (excluding packing) | 229 g         |
| Customs tariff number                | 85444210      |
| Country of origin                    | PL            |

# NBC-M12MSD/ 5,0-93E - Network cable



1407358

<https://www.phoenixcontact.com/us/products/1407358>

## Technical data

### Notes

|         |                                                                                                             |
|---------|-------------------------------------------------------------------------------------------------------------|
| General | Further products with variable cable type and variable cable length can be found in the accessories section |
|---------|-------------------------------------------------------------------------------------------------------------|

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Data cable preassembled |
| Application         | Standard                |
| Sensor type         | Ethernet                |
| Number of positions | 4                       |
| Shielded            | yes                     |

### Interfaces

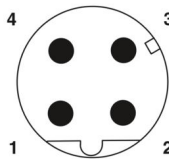
|                      |                                     |
|----------------------|-------------------------------------|
| Signal type/category | Ethernet CAT5 (IEC 11801), 100 Mbps |
|----------------------|-------------------------------------|

### Electrical properties

|                       |          |
|-----------------------|----------|
| Nominal voltage $U_N$ | 48 V AC  |
|                       | 60 V DC  |
| Nominal current $I_N$ | 4 A      |
| Transmission medium   | Copper   |
| Transmission speed    | 100 Mbps |

### Connector

#### Connection 1

|                             |                                                                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing         |  <p>Pin assignment M12 male connector, 4-pos., D-coded, male side</p> |
| Type                        | M12 Plug, straight, 4-position, shielded (Advanced Shielding Technology), Keying: D                                                                       |
| Number of positions         | 4                                                                                                                                                         |
| Shielded                    | yes                                                                                                                                                       |
| Shielding                   | Advanced Shielding Technology                                                                                                                             |
| Signal type/category        | Ethernet CAT5 (IEC 11801), 100 Mbps                                                                                                                       |
| Insertion/withdrawal cycles | $\geq 100$                                                                                                                                                |
| Insulation resistance       | $\geq 100 \text{ M}\Omega$                                                                                                                                |
| Overvoltage category        | II                                                                                                                                                        |
| Degree of pollution         | 3                                                                                                                                                         |
| Tightening torque           | 0.4 Nm                                                                                                                                                    |
| Material Contact            | CuSn                                                                                                                                                      |

# NBC-M12MSD/ 5,0-93E - Network cable



1407358

<https://www.phoenixcontact.com/us/products/1407358>

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Material Contact surface               | Ni/Au                                       |
| Material Contact carrier               | PA 6.6                                      |
| Material Screw connection              | Die-cast zinc, nickel-plated                |
| Material Grip body                     | TPU, hardly inflammable, self-extinguishing |
| Material Seal                          | FKM                                         |
| Flammability rating according to UL 94 | V0                                          |
| Degree of protection                   | IP65                                        |
|                                        | IP67                                        |
| Ambient temperature (operation)        | -25 °C ... 85 °C                            |
| Standard designation                   | M12 connector                               |
| Standards/regulations                  | IEC 61076-2-101                             |

## Connection 2

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

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 5 m |
|--------------|-----|

## Ethernet flexible CAT5, 2-pair [93E]

|                                |                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing            |  |
| UL AWM Style                   | 21238 (80 °C / 600 V)                                                                |
| Number of positions            | 4                                                                                    |
| Shielded                       | yes                                                                                  |
| Cable type                     | Ethernet flexible CAT5, 2-pair [93E]                                                 |
| Conductor structure            | 2x2xAWG26/7, SF/UTP                                                                  |
| AWG signal line                | 26                                                                                   |
| Conductor cross section        | 2x 2x 0.14 mm <sup>2</sup>                                                           |
| Wire diameter incl. insulation | 0.95 mm ±0.05 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/orange-orange, white/green-green                                               |
| Twisted pairs                  | 2 cores to the pair                                                                  |
| Overall twist                  | Two pairs with two fillers to the core                                               |
| Optical shield covering        | 70 %                                                                                 |
| Insulation resistance          | ≥ 5 GΩ*km                                                                            |

# NBC-M12MSD/ 5,0-93E - Network cable



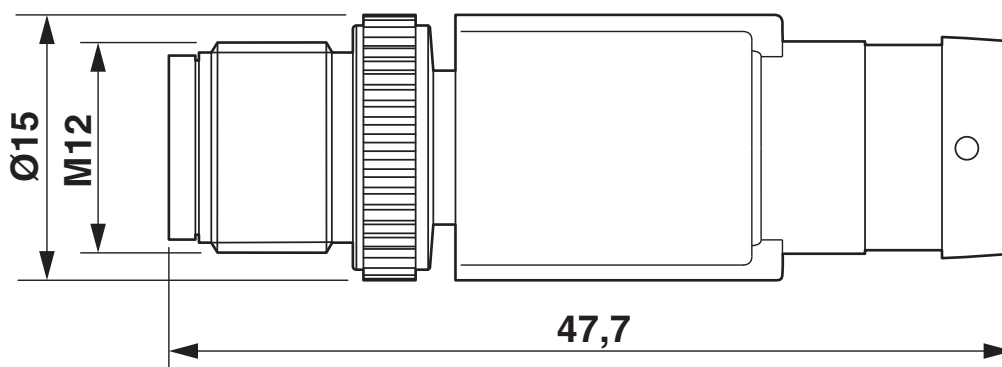
1407358

<https://www.phoenixcontact.com/us/products/1407358>

|                                               |                                                          |
|-----------------------------------------------|----------------------------------------------------------|
| Loop resistance                               | ≤ 280.00 Ω/km                                            |
| Wave impedance                                | 100 Ω ±5 Ω (at 100 MHz)                                  |
| Nominal voltage, cable                        | ≤ 100 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    | 4 x D                                                    |
| Minimum bending radius, flexible installation | 8 x D                                                    |
| Smallest bending radius, fixed installation   | 26 mm                                                    |
| Smallest bending radius, movable installation | 51 mm                                                    |
| Halogen-free                                  | according to IEC 60754-1                                 |
| Flame resistance                              | according to IEC 60332-1-2                               |
|                                               | in accordance with UN ECE-R 118.03                       |
|                                               | UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)     |
|                                               | UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2) |
| Resistance to oil                             | in accordance with IEC 60811-404                         |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)             |
|                                               | -30 °C ... 70 °C (Cable, flexible installation)          |

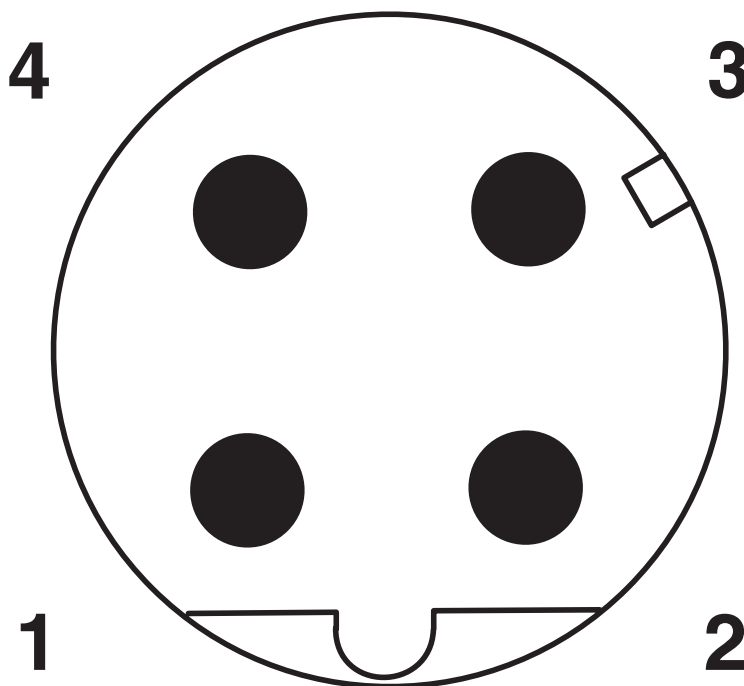
## Drawings

Dimensional drawing



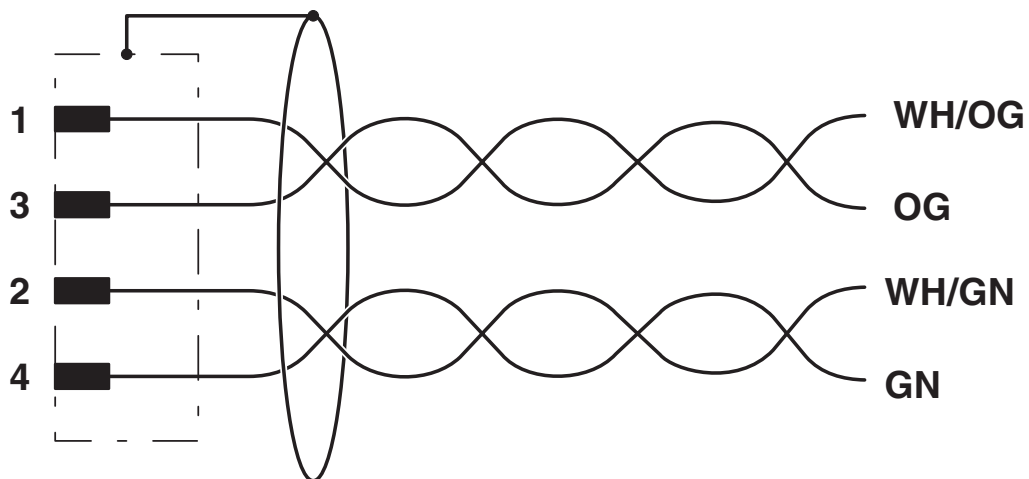
Plug, M12 x 1, straight, shielded

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

Circuit diagram



Contact assignment of the M12 plug

# NBC-M12MSD/ 5,0-93E - Network cable

1407358

<https://www.phoenixcontact.com/us/products/1407358>



## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407358>

|                                                                                                                                       |                       |                       |                   |                             |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Recognized</b><br>Approval ID: FILE E 335024 |                       |                       |                   |                             |
|                                                                                                                                       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                                 |                       |                       |                   |                             |
|                                                                                                                                       | 30 V                  | 4 A                   | -                 | -                           |

|                                                                                                                                      |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>UL Recognized</b><br>Approval ID: FILE E 335024 |                       |                       |                   |                             |
|                                                                                                                                      | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                                |                       |                       |                   |                             |
|                                                                                                                                      | 30 V                  | 4 A                   | -                 | -                           |

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

# NBC-M12MSD/ 5,0-93E - Network cable



1407358

<https://www.phoenixcontact.com/us/products/1407358>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060307 |
| ECLASS-15.0 | 27060307 |

### ETIM

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

### UNSPSC

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



# NBC-M12MSD/ 5,0-93E - Network cable



1407358

<https://www.phoenixcontact.com/us/products/1407358>

## 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 2025 © - 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)