

# NBC-M8MSD/ 1,0-93C/M8MSD - Network cable



1423707

<https://www.phoenixcontact.com/us/products/1423707>

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, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded (Advanced Shielding Technology), Plug straight M8, coding: D / IP67, on Plug straight M8, coding: D / IP67, cable length: 1 m

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1423707       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF02          |
| Product key                          | AF1BJI        |
| GTIN                                 | 4055626569208 |
| Weight per piece (including packing) | 86.4 g        |
| Weight per piece (excluding packing) | 86.2 g        |
| Customs tariff number                | 85444290      |
| Country of origin                    | PL            |

1423707

<https://www.phoenixcontact.com/us/products/1423707>

## Technical data

### Product properties

|                      |                         |
|----------------------|-------------------------|
| Product type         | Data cable preassembled |
| Application          | Standard                |
| Number of positions  | 4                       |
| No. of cable outlets | 1                       |
| Shielded             | yes                     |
| Coding               | D                       |

### Interfaces

|                      |                                      |
|----------------------|--------------------------------------|
| Signal type/category | PROFINET CAT5 (IEC 11801), 100 Mbps  |
|                      | EtherCAT® CAT5 (IEC 11801), 100 Mbps |

### Signaling

|                        |    |
|------------------------|----|
| Status display         | no |
| Status display present | no |

### 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

|                                 |   |
|---------------------------------|---|
| Type                            | Plug straight M8 / IP67                                 |
| Number of positions             | 4   |
| Coding type                     | D (Data)  |
| Shielded                        | yes   |
| Handle color                    | black   |
| Material                        | CuSn (Contact)  |
|                                 | Ni/Au (Contact surface)                                 |
|                                 | PA 6.6 (Contact carrier)                                |
|                                 | TPU, hardly inflammable, self-extinguishing (Grip body) |
|                                 | Brass, nickel-plated (Screw connection)                 |
| Insertion/withdrawal cycles     | ≥ 100   |
| Insulation resistance           | ≥ 100 MΩ  |
| Tightening torque               | 0.2 Nm  |
| Degree of protection            | IP67  |
| Ambient temperature (operation) | -25 °C ... 90 °C  |

#### Connection 2

# NBC-M8MSD/ 1,0-93C/M8MSD - Network cable



1423707


<https://www.phoenixcontact.com/us/products/1423707>

|                                 |   |
|---------------------------------|---|
| Type                            | Plug straight M8 / IP67                                 |
| Number of positions             | 4   |
| Coding type                     | D (Data)  |
| Shielded                        | yes   |
| Handle color                    | black   |
| Material                        | CuSn (Contact)  |
|                                 | Ni/Au (Contact surface)                                 |
|                                 | PA 6.6 (Contact carrier)                                |
|                                 | TPU, hardly inflammable, self-extinguishing (Grip body) |
|                                 | Brass, nickel-plated (Screw connection)                 |
| Insertion/withdrawal cycles     | ≥ 100   |
| Insulation resistance           | ≥ 100 MΩ  |
| Tightening torque               | 0.2 Nm  |
| Degree of protection            | IP67  |
| Ambient temperature (operation) | -25 °C ... 90 °C  |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 1 m |
|--------------|-----|

### PROFINET drag chain CAT5 [93C]

|                                |  |
|--------------------------------|--|
| Dimensional drawing            |  |
| UL AWM Style                   | 20233 (80°C/300 V)   |
| Number of positions            | 4  |
| Shielded                       | yes  |
| Cable type                     | PROFINET drag chain CAT5 [93C]   |
| Conductor structure            | 1x4xAWG22/7, SF/TQ   |
| AWG signal line                | 22   |
| Conductor cross-section        | 4x 0.34 mm <sup>2</sup>  |
| Wire diameter incl. insulation | 1.5 mm ±0.05 mm  |
| External cable diameter        | 6.50 mm ±0.2 mm  |
| Outer sheath, material         | PUR  |
| External sheath, color         | green RAL 6018   |
| Conductor material             | Tin-plated Cu litz wires   |
| Material wire insulation       | PE   |
| Single wire, color             | white, yellow, blue, orange  |
| Overall twist                  | Star quad  |
| Optical shield covering        | 85 %   |

# NBC-M8MSD/ 1,0-93C/M8MSD - Network cable



1423707

<https://www.phoenixcontact.com/us/products/1423707>

|   |   |
|---|---|
| Insulation resistance                         | ≥ 500 MΩ*km   |
| Loop resistance                               | ≤ 120.00 Ω/km   |
| Wave impedance                                | 100 Ω ±15 Ω (at 1 ... 100 MHz)  |
| Nominal voltage, cable                        | ≤ 300 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    | 5 x D   |
| Minimum bending radius, flexible installation | 7.5 x D   |
| Dynamic load capacity (bending)               | Max. bending cycles: 3000000, Bending radius: 200 mm, Traversing path: 10 m, Traversing rate: 4 m/s, Acceleration: 4 m/s <sup>2</sup> |
| Dynamic load capacity (torsion)               | Torsion: ±30 °/m  |
| Halogen-free                                  | according to IEC 60754-1  |
| Flame resistance                              | according to IEC 60332-1-2  |
|   | in accordance with UN ECE-R 118.03  |
|   | according to CSA C 22.2 No. 210-FT1   |
| Resistance to oil                             | in accordance with DIN EN 60811-404   |
| Other resistance                              | UV resistant  |
| Special properties                            | Flexible cable conduit capable  |
| Ambient temperature (operation)               | -40 °C ... 70 °C (cable, fixed installation)  |
|   | -40 °C ... 70 °C (Cable, flexible installation)   |

## Environmental and real-life conditions

### Ambient conditions

|                      |      |
|----------------------|------|
| Degree of protection | IP65 |
|                      | IP67 |

## Standards and regulations

### M8

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M8 connector    |
| Standards/specifications | IEC 61076-2-114 |

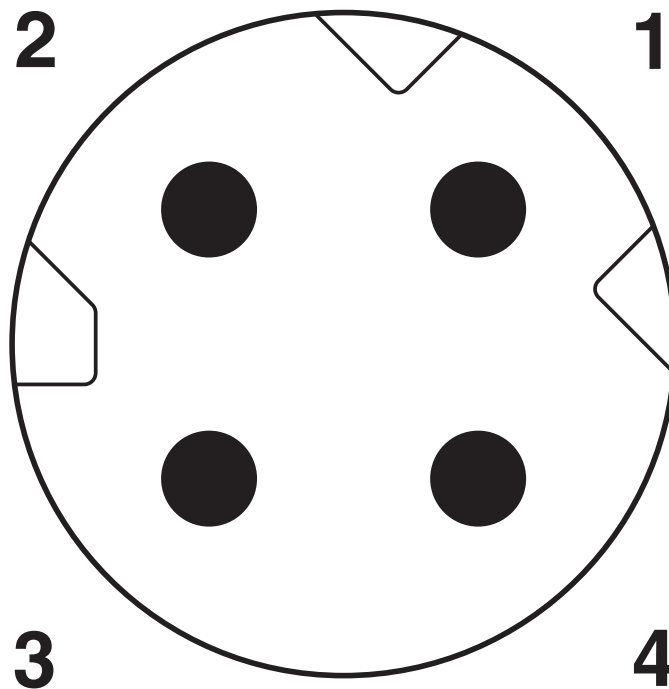
Drawings

Dimensional drawing



Plug M8 x 1, straight, shielded

Schematic diagram

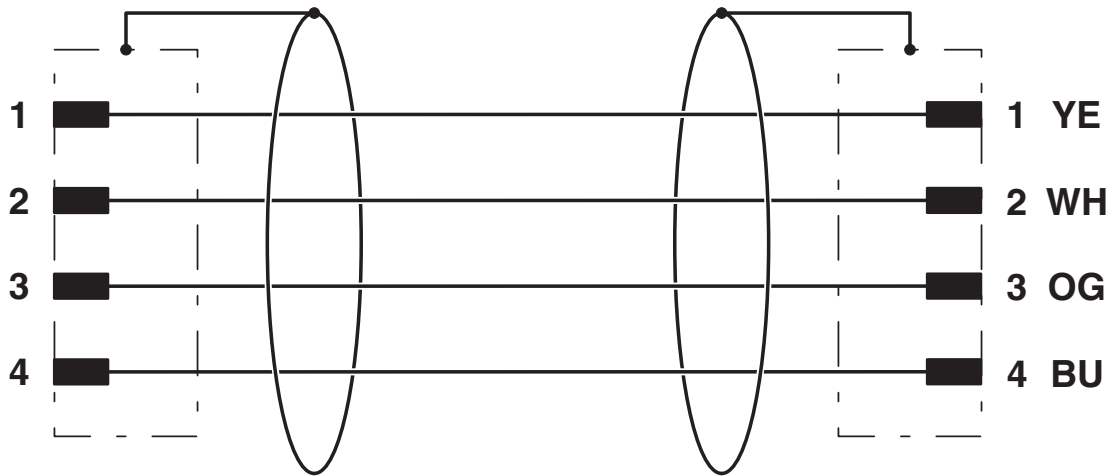


Pin assignment M8 male connector, 4-pos., D-coded, view of pin side

1423707

<https://www.phoenixcontact.com/us/products/1423707>

Circuit diagram



Contact assignment of M8 plugs

# NBC-M8MSD/ 1,0-93C/M8MSD - Network cable





1423707

<https://www.phoenixcontact.com/us/products/1423707>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1423707>

|  <b>UL Listed</b><br>Approval ID: E335024 |                       |                       |                   |                             |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine  |                       |                       |                   |                             |
|  | 30 V                  | 0.5 A                 | -                 | -                           |

|  <b>cUL Listed</b><br>Approval ID: E335024 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine   |                       |                       |                   |                             |
|   | 30 V                  | 0.5 A                 | -                 | -                           |

# NBC-M8MSD/ 1,0-93C/M8MSD - Network cable



1423707

<https://www.phoenixcontact.com/us/products/1423707>

## Classifications

### ECLASS

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

### UNSPSC

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

# NBC-M8MSD/ 1,0-93C/M8MSD - Network cable



1423707

<https://www.phoenixcontact.com/us/products/1423707>

## 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 2026 © - 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)