

NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760

<https://www.phoenixcontact.com/us/products/1038760>

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), Socket straight M12, coding: D / IP67, on Plug straight RJ45 / IP20, cable length: 10 m

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1038760 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF04 |
| Product key | AF1CJN |
| GTIN | 4055626592428 |
| Weight per piece (including packing) | 655.2 g |
| Weight per piece (excluding packing) | 655.2 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

1038760

<https://www.phoenixcontact.com/us/products/1038760>

Technical data

Notes

| | |
|---------|--|
| General | This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 10.1 Cord Sets for Balanced Cabling |
| 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 | PROFINET |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | D |

Insulation characteristics

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

Interfaces

| | |
|----------------------|---|
| Bus system | PROFINET |
| 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 | 1 A |
| Transmission medium | Copper |
| Transmission speed | 100 Mbps |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |

Material specifications

| | |
|--|----|
| Flammability rating according to UL 94 | V2 |
|--|----|

Connector

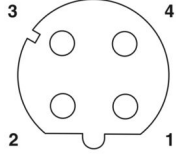
Connection 1

NBC-M12FSD/10,0-93C/R4AC - Network cable

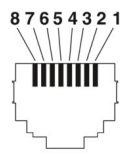


1038760

<https://www.phoenixcontact.com/us/products/1038760>

| | |
|--|---|
| Dimensional drawing |  <p>Pin assignment M12 socket, 4-pos., D-coded, female side</p> |
| Type | M12 Socket, straight, 4-position, shielded (Advanced Shielding Technology), Keying: D |
| Number of positions | 4 |
| Shielded | yes |
| Shielding | Advanced Shielding Technology |
| Signal type/category | EtherCAT® CAT5 (IEC 11801), 100 Mbps PROFINET CAT5 (IEC 11801) |
| Insertion/withdrawal cycles | ≥ 100 |
| Insulation resistance | ≥ 100 MΩ |
| Overvoltage category | II |
| Degree of pollution | 3 |
| Tightening torque | 0.4 Nm |
| Material Contact | CuSn |
| 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

| | |
|----------------------|---|
| Dimensional drawing |  <p>Connector pin assignment plug RJ45</p> |
| Type | RJ45, straight |
| Signal type/category | PROFINET CAT5 (IEC 11801), 100 Mbps EtherCAT® CAT5 (IEC 11801) |

NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760


<https://www.phoenixcontact.com/us/products/1038760>

| | |
|--|------------------|
| Insertion/withdrawal cycles | ≥ 750 |
| Insulation resistance | ≥ 100 MΩ |
| Overvoltage category | I |
| Degree of pollution | 2 |
| Material Contact | CuSn |
| Material Contact surface | Ni/Au |
| Material Contact carrier | PA |
| Material Housing | PA |
| Color (Housing) | black |
| Flammability rating according to UL 94 | V2 |
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 80 °C |

Cable/line

| | |
|--------------|------|
| Cable length | 10 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 ² |
| 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 % |
| Insulation resistance | ≥ 500 MΩ*km |
| Loop resistance | ≤ 120.00 Ω/km |
| Wave impedance | 100 Ω ±15 Ω (at 1 ... 100 MHz) |

NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760

<https://www.phoenixcontact.com/us/products/1038760>

| | |
|---|---|
| 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 ² |
| 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) |

Standards and regulations

M12

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

NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760

<https://www.phoenixcontact.com/us/products/1038760>

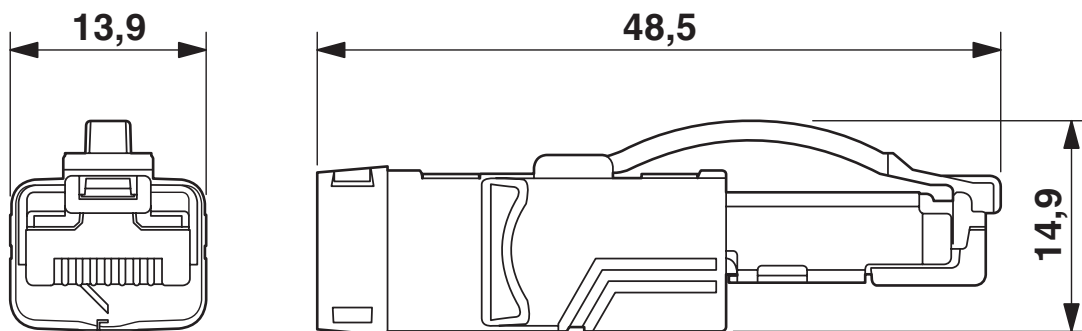
Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded

Dimensional drawing



RJ45 connector, IP20

1038760

<https://www.phoenixcontact.com/us/products/1038760>

Schematic diagram



Pin assignment M12 socket, 4-pos., D-coded, female side

1038760

<https://www.phoenixcontact.com/us/products/1038760>

Schematic diagram



Connector pin assignment plug RJ45

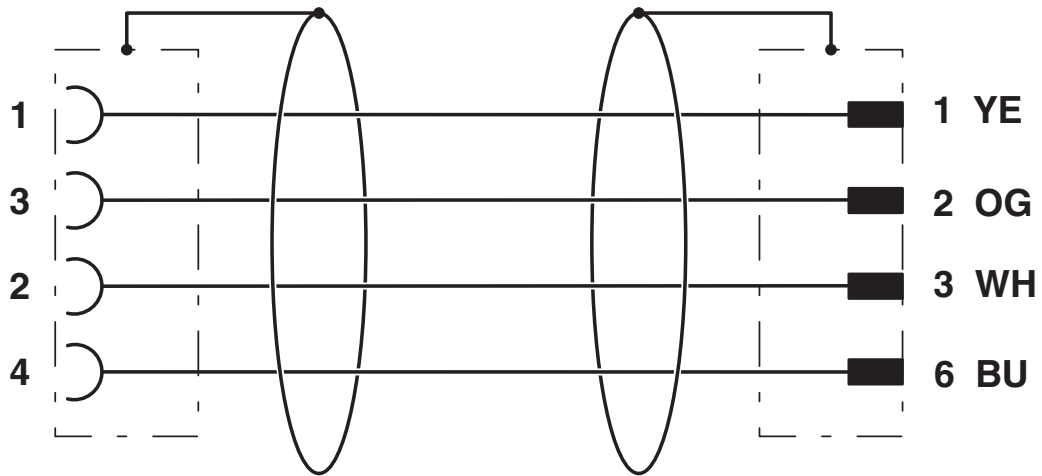
NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760

<https://www.phoenixcontact.com/us/products/1038760>

Circuit diagram



Contact assignment of the M12 socket and the RJ45 plug

NBC-M12FSD/10,0-93C/R4AC - Network cable




1038760

<https://www.phoenixcontact.com/us/products/1038760>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1038760>

|  cULus Listed Approval ID: E335024 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 60 V | 0.5 A | - | - |

NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760

<https://www.phoenixcontact.com/us/products/1038760>

Classifications

ECLASS

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

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001855 |
|-----------|----------|

UNSPSC

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

NBC-M12FSD/10,0-93C/R4AC - Network cable



1038760

<https://www.phoenixcontact.com/us/products/1038760>

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