

## Network cable - NBC-MR/ 2,0-94B/FR SCO US - 1406114


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Network cable, Ethernet CAT5, Ethernet CAT5e, 8-position, PUR halogen-free, water blue RAL 5021, shielded, Plug angled M12 SPEEDCON / IP67, Coding: A, on Socket angled M12 SPEEDCON / IP67, Coding: A, Cable length: 2 m



### Key commercial data

|                      |   |
|----------------------|---|
| Packing unit         | 1   |
| GTIN                 | <br>4 046356 799355 |
| Custom tariff number | 85444210  |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 2 m |
|-----------------|-----|

#### Ambient conditions

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

#### General data

|                       |                                |
|-----------------------|--------------------------------|
| Rated current at 40°C | 2 A                            |
| Rated voltage         | 30 V                           |
| Number of positions   | 8                              |
| Signal type/category  | Ethernet CAT5 (IEC 11801:2002) |
|                       | Ethernet CAT5e (TIA 568B:2001) |
| Standards/regulations | M12 connector IEC 61076-2-101  |

#### Characteristics head 1

|             |                                 |
|-------------|---------------------------------|
| Head design | Plug angled M12 SPEEDCON / IP67 |
| Coding      | A (Standard)                    |

#### Characteristics head 2

|             |                                   |
|-------------|-----------------------------------|
| Head design | Socket angled M12 SPEEDCON / IP67 |
|-------------|-----------------------------------|

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## Technical data

### Characteristics head 2

|        |              |
|--------|--------------|
| Coding | A (Standard) |
|--------|--------------|

### Cable

|   |  |
|---|--|
| Cable type                                    | Ethernet, flexible, CAT5e  |
| Cable type (abbreviation)                     | 94B  |
| UL AWM style                                  | 20963 (80 °C / 60 V)   |
| Signal type/category                          | Ethernet CAT5 (IEC 11801:2002), 1 Gbps<br>Ethernet CAT5e (TIA 568B:2001), 1 Gbps |
| Cable structure                               | 4x2xAWG26/7; SF/UTP  |
| Conductor cross section                       | 4x 2x 0.14 mm <sup>2</sup>   |
| AWG signal line                               | 26   |
| Conductor structure signal line               | 7x 0.16 mm   |
| Core diameter including insulation            | 0.98 mm  |
| Thickness, insulation                         | 0.25 mm  |
| Wire colors                                   | white/blue-blue, white/orange-orange, white/green-green, white/brown-brown       |
| Twisted pairs                                 | 2 cores to the pair  |
| Overall twist                                 | 4 pairs  |
| Shielding                                     | Aluminum-coated foil, tinned copper braided shield                               |
| Optical shield covering                       | 70 %   |
| External sheath, color                        | water blue RAL 5021  |
| Outer sheath thickness                        | 1 mm   |
| External cable diameter D                     | 6.4 mm ±0.2 mm   |
| Smallest bending radius, fixed installation   | 25.6 mm  |
| Smallest bending radius, movable installation | 51.2 mm  |
| Tensile strength short-term/long-term         | ≤ 100 N  |
| Cable weight                                  | 47 kg/km   |
| Outer sheath, material                        | PUR  |
| Material conductor insulation                 | PE   |
| Conductor material                            | Bare Cu litz wires   |
| Insulation resistance                         | ≥ 500 MΩ*km  |
| Loop resistance                               | ≤ 290 Ω (per kilometer)  |
| Working capacitance                           | 48 nF (At 1 kHz)   |
| Wave impedance                                | 100 Ω ±5 Ω (at 100 MHz)  |
| Signal runtime                                | 5.3 ns/m   |
| Coupling resistance                           | ≤ 100.00 mΩ/m (At 10 MHz)  |
| Nominal voltage, cable                        | ≤ 100 V<br>300 V (Outer cable sheath)  |
| Test voltage Core/Core                        | 700 V (50 Hz, 1 min.)  |
| Test voltage Core/Shield                      | 700 V (50 Hz, 1 min.)  |
| Flame resistance                              | IEC 60332-1-2  |

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## Technical data

### Cable

|   |   |
|---|---|
| Halogen-free                            | According to IEC 60754-1                        |
| Resistance to oil                       | in accordance with DIN 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                                |
| Ambient temperature (storage/transport) | -20 °C ... 80 °C                                |

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27279218 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

## Approvals

### Approvals

Approvals

UL Listed

Ex Approvals

# Network cable - NBC-MR/ 2,0-94B/FR SCO US - 1406114

## Approvals

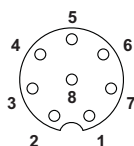
Approvals submitted

## Approval details

|                                |       |
|--------------------------------|-------|
| UL Listed                      |       |
| Nominal current I <sub>N</sub> | 0.5 A |
| Nominal voltage U <sub>N</sub> | 60 V  |

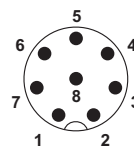
## Drawings

Schematic diagram



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

Schematic diagram



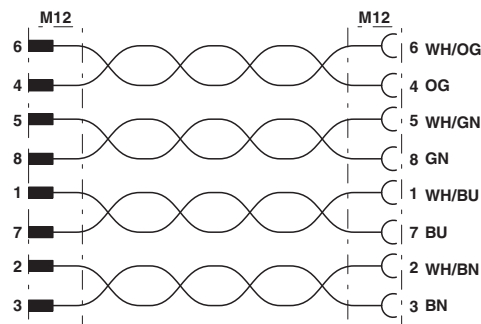
Pin assignment M12 plug, 8-pos., A-coded, view plug side

Cable cross section



Ethernet, flexible, CAT5e [94B]

Circuit diagram



Contact assignment of the M12 connector and the M12 socket