

## Network cable - NBC-MS/ 20,0-94B/MS SCO US - 1418083

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Network cable, Ethernet CAT5 (1 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded, Plug straight M12 SPEEDCON / IP67, Coding: A, on Plug straight M12 SPEEDCON / IP67, Coding: A, Cable length: 20 m



**Ethernet**



### Key Commercial Data

|                                      |               |
|--------------------------------------|---------------|
| Packing unit                         | 1 STK         |
| Weight per Piece (excluding packing) | 58.0 g        |
| Custom tariff number                 | 85444210      |
| Country of origin                    | United States |

### Technical data

#### Dimensions

|                 |      |
|-----------------|------|
| Length of cable | 20 m |
|-----------------|------|

#### Ambient conditions

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

#### General data

|                       |                                   |
|-----------------------|-----------------------------------|
| Rated current at 40°C | 2 A                               |
| Rated voltage         | 30 V                              |
| Number of positions   | 8                                 |
| Signal type/category  | Ethernet CAT5 (IEC 11801), 1 Gbps |
| Standards/regulations | M12 connector IEC 61076-2-101     |

#### Characteristics head 1

|           |                                   |
|-----------|-----------------------------------|
| Head type | Plug straight M12 SPEEDCON / IP67 |
| Coding    | A (Standard)                      |

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## Technical data

### Characteristics head 2

|           |                                   |
|-----------|-----------------------------------|
| Head type | Plug straight M12 SPEEDCON / IP67 |
| Coding    | A (Standard)                      |

### Standards and Regulations

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

### Cable

|                                               |                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------|
| Cable type                                    | Ethernet, flexible, CAT5                                                   |
| Cable type (abbreviation)                     | 94B                                                                        |
| UL AWM style                                  | 20963 (80°C/30 V)                                                          |
| Signal type/category                          | Ethernet CAT5 (IEC 11801), 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            | 0.96 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 for core                                                           |
| Shielding                                     | Aluminum-coated foil, tinned copper braided shield                         |
| Optical shield covering                       | 70 %                                                                       |
| External sheath, color                        | water blue RAL 5021                                                        |
| Outer sheath thickness                        | 1.05 mm                                                                    |
| External cable diameter D                     | 6.4 mm ±0.2 mm                                                             |
| Minimum bending radius, fixed installation    | 4 x D                                                                      |
| Minimum bending radius, flexible installation | 8 x D                                                                      |
| Tensile strength short-term/long-term         | ≤ 100 N                                                                    |
| Cable weight                                  | 47 kg/km                                                                   |
| Outer sheath, material                        | PUR                                                                        |
| Material conductor insulation                 | Foamed PE                                                                  |
| Conductor material                            | Bare Cu litz wires                                                         |
| Insulation resistance                         | ≥ 500 MΩ*km                                                                |
| Loop resistance                               | ≤ 290 Ω (per km)                                                           |
| Cable capacity                                | 48 nF/km (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)                                                  |

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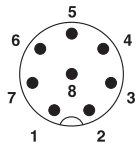
Technical data

Cable

|                                         |                                                 |
|-----------------------------------------|-------------------------------------------------|
| Nominal voltage, cable                  | ≤ 100 V                                         |
| Test voltage Core/Core                  | 700 V (50 Hz, 1 min.)                           |
| Test voltage Core/Shield                | 700 V (50 Hz, 1 min.)                           |
| Flame resistance                        | According to IEC 60332-1-2                      |
| Halogen-free                            | According to IEC 60754-1                        |
| Resistance to oil                       | according to 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                                |

Drawings

Schematic diagram



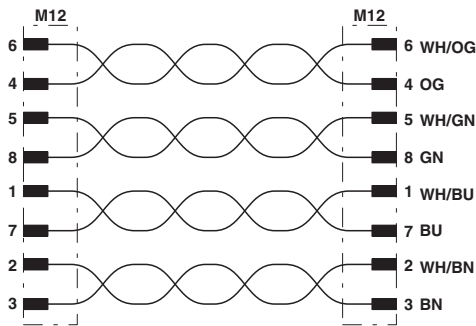
Pin assignment M12 plug, 8-pos., A-coded, view plug side

Cable cross section



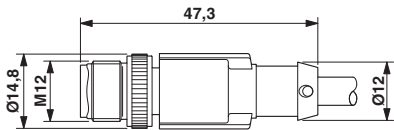
Ethernet, flexible, CAT5 [94B]

Circuit diagram



Contact assignment of the M12 plugs

Dimensional drawing



Plug, M12 x 1, straight, shielded

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC001855 |
|----------|----------|