

Network cable - NBC-MR/ 0,5-94B/FR SCO US - 1408756


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Network cable, Ethernet CAT5 (1 Gbps), 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: 0.5 m



Key Commercial Data

| | |
|--------------------------------------|--|
| Packing unit | 1 pc |
| GTIN |  4 046356 827621 |
| GTIN | 4046356827621 |
| Weight per Piece (excluding packing) | 60.000 g |
| Custom tariff number | 85444210 |
| Country of origin | United States |

Technical data

Dimensions

| | |
|-----------------|-------|
| Length of cable | 0.5 m |
|-----------------|-------|

Ambient conditions

| | |
|---------------------------------|----------------------------------|
| Degree of protection | IP65 |
| | IP67 |
| Ambient temperature (operation) | -25 °C ... 85 °C (M12 connector) |

General data

| | |
|-----------------------|---|
| Rated current at 40°C | 2 A |
| Rated voltage | 48 V AC |
| | 60 V DC |
| Number of positions | 8 |
| Signal type/category | Ethernet CAT5 (on the basis of IEC 11801), 1 Gbps |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Contact material | CuSn |

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Technical data

General data

| | |
|---|-----------|
| Contact carrier material | TPU GF |
| Contact surface material | Ni/Au |
| Degree of protection | IP65/IP67 |
| Transmission characteristics (category) | CAT5 |

Characteristics head 1

| | |
|------------------------|---------------------------------|
| Head type | Plug angled M12 SPEEDCON / IP67 |
| Coding | A (Standard) |
| Shielded | yes |
| Outer sheath, material | PUR |
| External sheath, color | water blue RAL 5021 |
| Type type, plug side | Plug angled |
| Type type, socket side | Socket, angled |

Characteristics head 2

| | |
|-----------|-----------------------------------|
| Head type | Socket angled M12 SPEEDCON / IP67 |
| Coding | A (Standard) |
| Color | black |

Standards and Regulations

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

Cable

| | |
|------------------------------------|--|
| Cable type | Ethernet flexible CAT5, 4-pair |
| 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 ² |
| 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 |

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Cable

| | |
|--|-------------------------|
| 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 GRP | ≤ 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 | ≤ 290.00 Ω/km |
| Cable capacity | 48 nF/km (at 1 kHz) |
| Wave impedance | 100 Ω ±5 Ω (at 100 MHz) |
| Near end crosstalk attenuation (NEXT) | 71.3 dB (with 1 MHz) |
| | 62.3 dB (at 4 MHz) |
| | 56.3 dB (at 10 MHz) |
| | 53.2 dB (at 16 MHz) |
| | 51.8 dB (at 20 MHz) |
| | 48.9 dB (at 31.25 MHz) |
| | 44.4 dB (at 62.5 MHz) |
| | 41.3 dB (at 100 MHz) |
| Power-summated near end crosstalk attenuation (PSNEXT) | 62.3 dB (with 1 MHz) |
| | 53.3 dB (at 4 MHz) |
| | 47.3 dB (at 10 MHz) |
| | 44.2 dB (at 16 MHz) |
| | 42.8 dB (at 20 MHz) |
| | 39.9 dB (at 31.25 MHz) |
| | 35.4 dB (at 62.5 MHz) |
| | 32.3 dB (at 100 MHz) |
| Attenuation | 3.2 dB (with 1 MHz) |
| | 6 dB (at 4 MHz) |
| | 9.5 dB (at 10 MHz) |
| | 12.1 dB (at 16 MHz) |
| | 13.6 dB (at 20 MHz) |
| | 17.1 dB (at 31.25 MHz) |
| | 24.8 dB (at 62.5 MHz) |
| | 32 dB (at 100 MHz) |
| Return loss (RL) | 23 dB (at 4 MHz) |

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Technical data

Cable

| | |
|---|---|
| | 24.1 dB (at 8 MHz) |
| | 25 dB (at 10 MHz) |
| | 25 dB (at 16 MHz) |
| | 25 dB (at 20 MHz) |
| | 23.6 dB (at 31.25 MHz) |
| | 21.5 dB (at 62.5 MHz) |
| | 20.1 dB (at 100 MHz) |
| Signal runtime | 5.3 ns/m |
| Coupling resistance | ≤ 100.00 mΩ/m (at 10 MHz) |
| 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 |

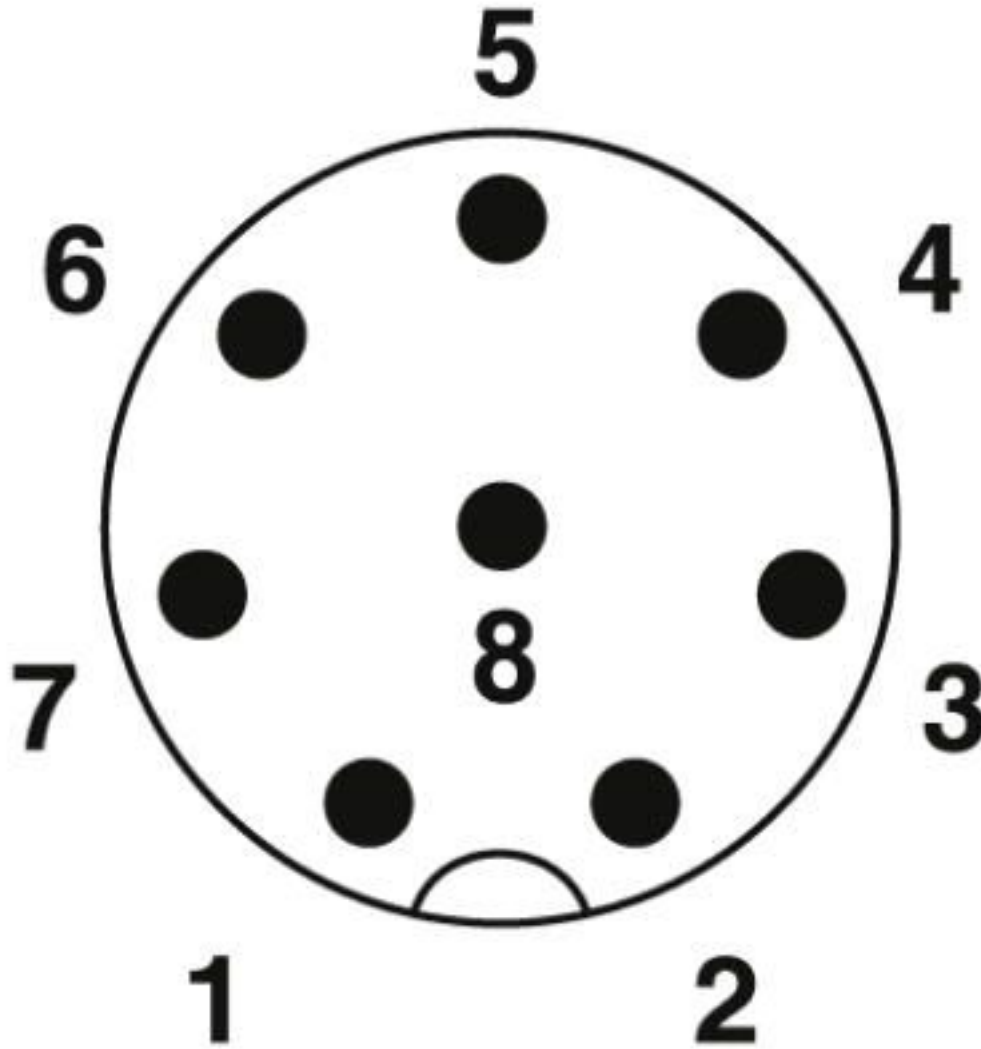
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Network cable - NBC-MR/ 0,5-94B/FR SCO US - 1408756

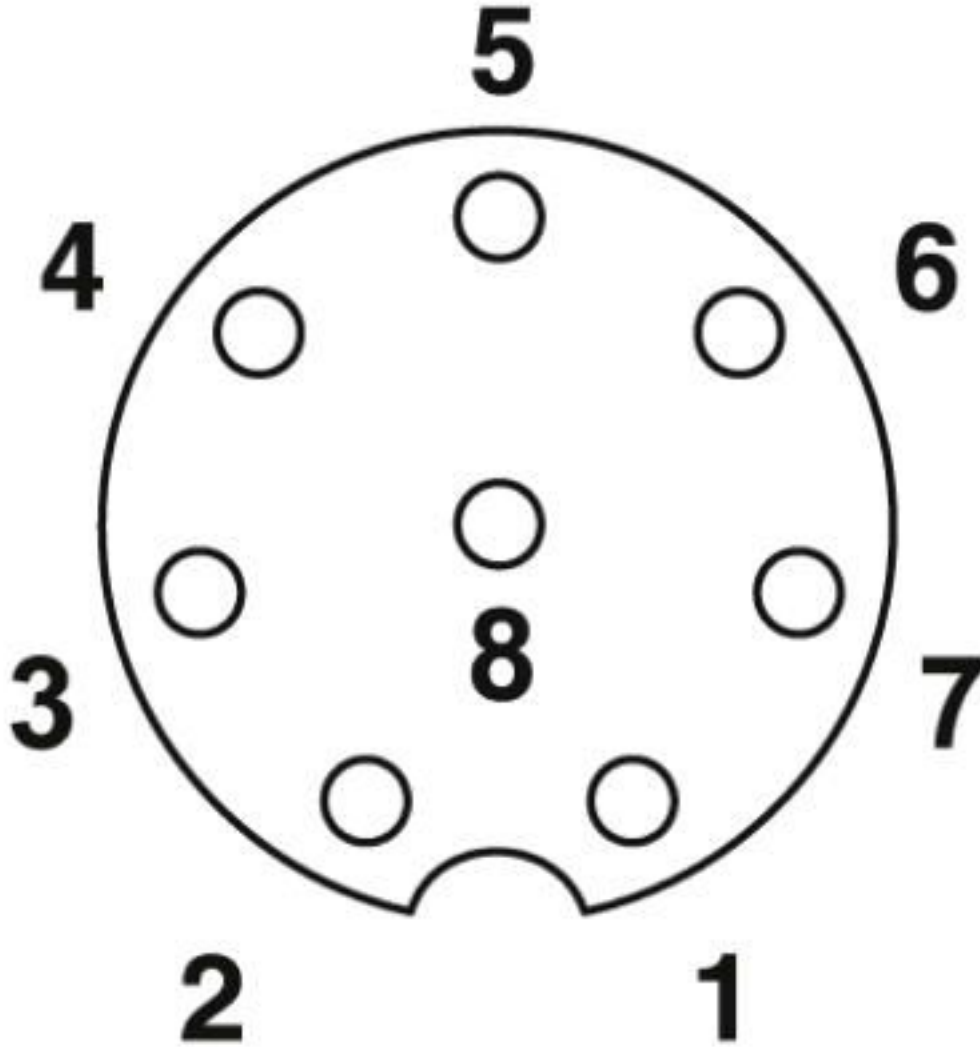
Schematic diagram



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

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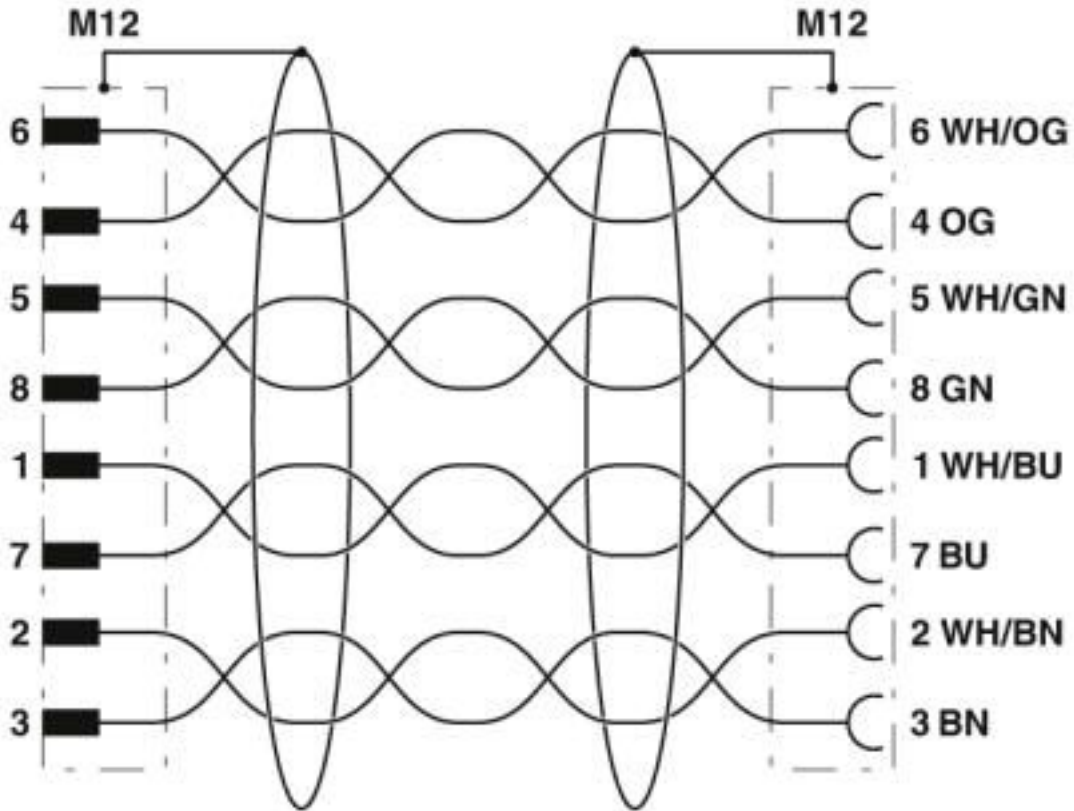
Schematic diagram



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

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Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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Cable cross section



Ethernet flexible CAT5, 4-pair [94B]

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27060308 |
| eCl@ss 4.0 | 24010400 |
| eCl@ss 4.1 | 24010400 |
| eCl@ss 5.0 | 19030300 |
| eCl@ss 5.1 | 19030300 |
| eCl@ss 6.0 | 27061800 |
| eCl@ss 7.0 | 27061801 |

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Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 8.0 | 27061801 |
| eCl@ss 9.0 | 27060308 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC002599 |
| ETIM 5.0 | EC002599 |
| ETIM 6.0 | EC000830 |
| ETIM 7.0 | EC003249 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |
| UNSPSC 18.0 | 26121604 |
| UNSPSC 19.0 | 26121604 |
| UNSPSC 20.0 | 26121604 |
| UNSPSC 21.0 | 26121604 |

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

| | | |
|-----|--|--------------------------|
| EAC | | RU D- DE.HB35.B.00387 |
|-----|--|--------------------------|

