

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



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 211886 |
| GTIN | 4055626211886 |
| Weight per Piece (excluding packing) | 58.000 g |
| Custom tariff number | 85444210 |
| Country of origin | United States |

Technical data

Dimensions

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

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Technical data

General data

| | |
|--------------------------|---|
| Signal type/category | Ethernet CAT5 (on the basis of IEC 11801), 1 Gbps |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Contact material | CuSn |
| Contact carrier material | TPU GF |
| Contact surface material | Ni/Au |

Characteristics head 1

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

Characteristics head 2

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

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 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 |
| 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 |

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Cable

| | |
|--|-------------------------|
| 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) |
| | 24.1 dB (at 8 MHz) |
| | 25 dB (at 10 MHz) |
| | 25 dB (at 16 MHz) |

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Technical data

Cable

| | |
|---|---|
| | 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 |

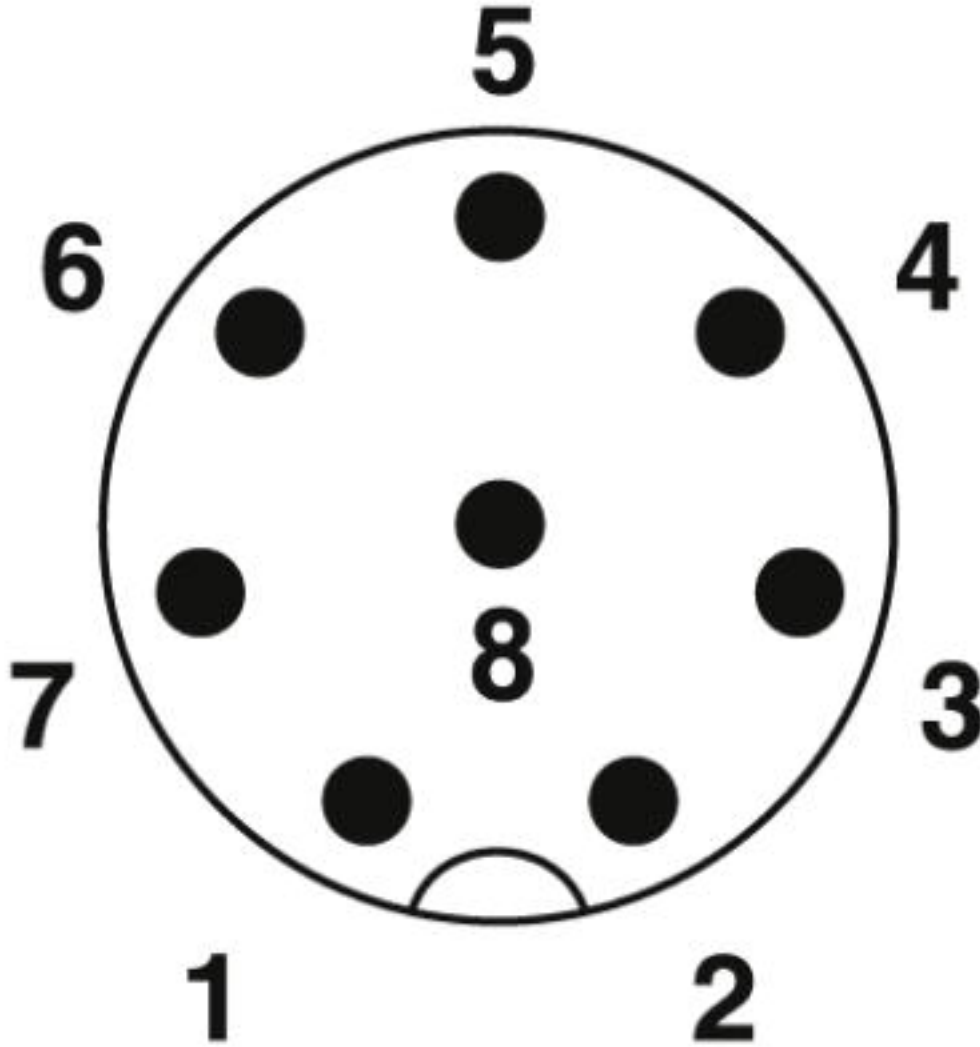
Environmental Product Compliance

| | |
|------------|---|
| | Lead 7439-92-1 |
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

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

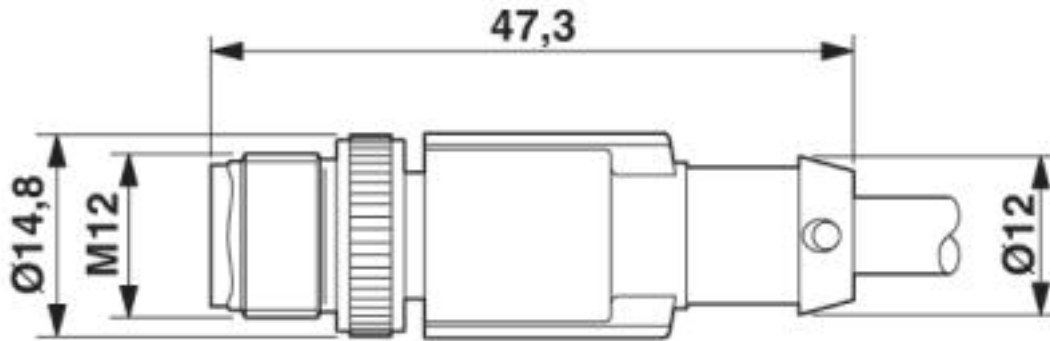
Schematic diagram



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

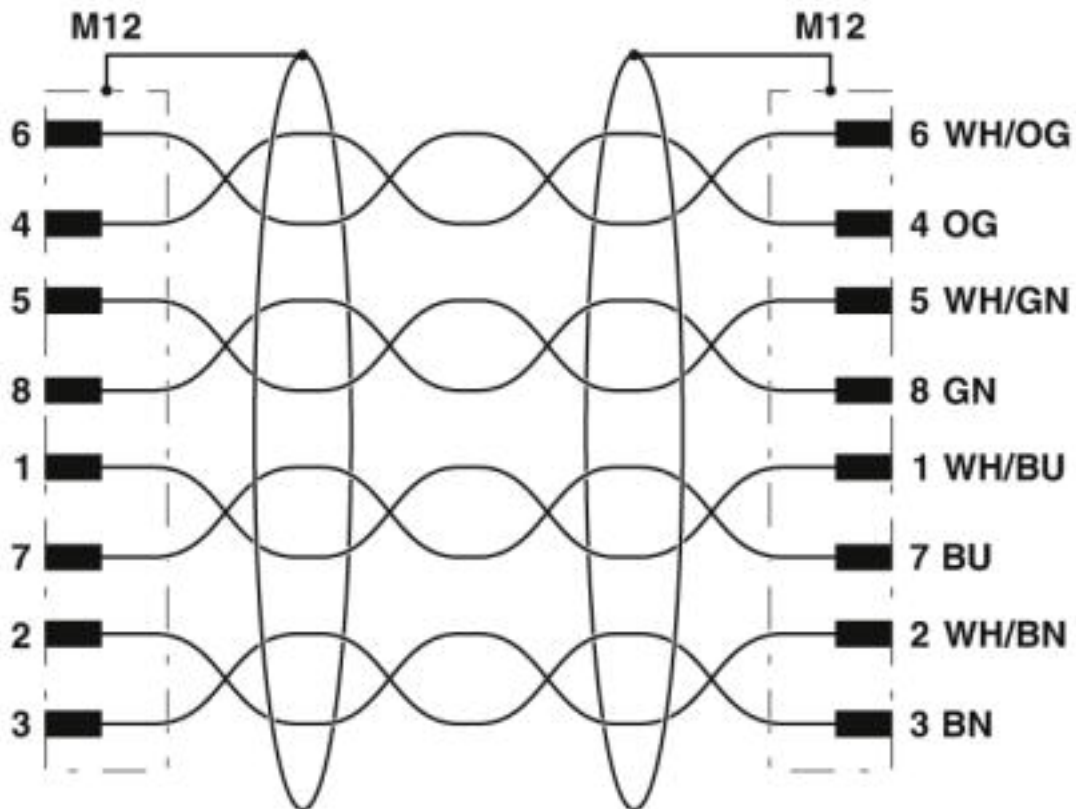
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of the M12 plugs

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Cable cross section



Ethernet, flexible, CAT5 [94B]

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 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27061801 |

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Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 9.0 | 27060308 |
|------------|----------|

ETIM

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

Approval details

| | | | |
|--------------------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 335024 |
| Nominal voltage UN | 30 V | | |
| Nominal current IN | 1.5 A | | |