

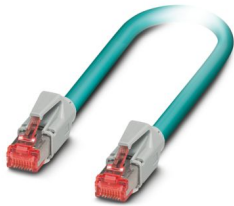
NBC-R4AC/1,0-94B/R4AC - Network cable



1408950

<https://www.phoenixcontact.com/us/products/1408950>

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Assembled Ethernet cable, shielded, 4-pair, AWG 26 stranded (7-wire), RAL 5021 (water blue), RJ45 plug/IP20 to RJ45 plug/IP20, line, length: 1 m

Your advantages

- Compact angle
- Perfect for industrial applications
- PVC cable for flexible installations
- Worldwide approval with CE, UL, WEEE, and EAC
- Secure connection and disconnection with reliable locking clip protection
- Ideal EMC properties, thanks to 360° shielding
- Simultaneous power transmission with PoE++
- Resistant to shock and vibrations, thanks to robust molding
- High-speed data transmission with up to 1 Gbps (CAT5)

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1408950 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB11 |
| Product key | ABNABE |
| GTIN | 4046356856775 |
| Weight per piece (including packing) | 72 g |
| Weight per piece (excluding packing) | 63.347 g |
| Customs tariff number | 85444210 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|---------------------|--------------------------|
| Product type | Data cable preassembled |
| Product family | RJ45 INDUSTRIAL IE8 CAT5 |
| Sensor type | Ethernet |
| Number of positions | 8 |
| Shielded | yes |

Electrical properties

| | |
|---|-----------------------|
| Rated voltage (III/3) | 72 V (DC) |
| Nominal voltage U_N | 48 V |
| Nominal current I_N | 1 A |
| Transmission speed | 1 Gbps |
| Transmission characteristics (category) | CAT5 (IEC 11801:2002) |
| Transmission speed | 1 Gbps |
| Wave impedance | 100 Ω |

Material specifications

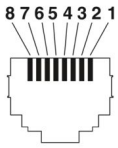
| | |
|------------------------|--------------------|
| Outer sheath, material | PUR |
| Conductor material | Bare Cu litz wires |

Dimensions

| | |
|--------|---------|
| Width | 13.4 mm |
| Height | 12.9 mm |
| Length | 44.7 mm |

Connector

Connection 1

| | |
|-----------------------------|---|
| Dimensional drawing |  <p>Connector pin assignment plug RJ45</p> |
| Type | RJ45 Plug, straight, 8-position |
| Number of positions | 8 |
| Signal type/category | Ethernet CAT5 (IEC 11801:2002), 1 Gbps |
| Insertion/withdrawal cycles | ≥ 750 |
| Insertion force | 30 N (per signal contact) |

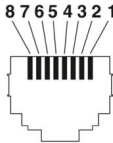
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| | |
|--|---------------------------|
| Withdrawal force | 50 N (per signal contact) |
| Degree of pollution | 2 |
| Material Contact | CuSn |
| Material Contact surface | Ni/Au |
| Material Contact carrier | PC |
| Material Housing | PA |
| Color (Housing) | gray |
| Flammability rating according to UL 94 | V2 |
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 60 °C |

Connection 2

| | |
|--|--|
| Dimensional drawing |  <p>Connector pin assignment plug RJ45</p> |
| Type | RJ45 Plug, straight, 8-position |
| Number of positions | 8 |
| Signal type/category | Ethernet CAT5 (IEC 11801:2002), 1 Gbps |
| Insertion/withdrawal cycles | ≥ 750 |
| Insertion force | 30 N (per signal contact) |
| Withdrawal force | 50 N (per signal contact) |
| Degree of pollution | 2 |
| Material Contact | CuSn |
| Material Contact surface | Ni/Au |
| Material Contact carrier | PC |
| Material Housing | PA |
| Color (Housing) | gray |
| Flammability rating according to UL 94 | V2 |
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 60 °C |

Cable/line

| | |
|--------------|--------|
| Cable length | 1.00 m |
|--------------|--------|

Ethernet flexible CAT5, 4-pair [94B]

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| | |
|---|--|
| Dimensional drawing |  |
| Cable weight | 47 kg/km |
| UL AWM Style | 20963 (80°C/30 V) |
| Number of positions | 8 |
| Shielded | yes |
| Cable type | Ethernet flexible CAT5, 4-pair [94B] |
| Conductor structure | 4x2xAWG26/7, SF/UTP |
| Signal runtime | 5.3 ns/m |
| Conductor structure signal line | 7x 0.16 mm |
| AWG signal line | 26 |
| Conductor cross-section | 4x 2x 0.14 mm ² |
| Wire diameter incl. insulation | 0.96 mm |
| External cable diameter | 6.40 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | water blue RAL 5021 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | Foamed PE |
| Single wire, color | white/blue-blue, white/orange-orange, white/green-green, white/brown-brown |
| Thickness, outer sheath | 1.05 mm |
| Twisted pairs | 2 cores to the pair |
| Overall twist | 4 pairs for core |
| Optical shield covering | 70 % |
| Insulation resistance | ≥ 5 GΩ*km |
| Coupling resistance | ≤ 100.00 mΩ/m (at 10 MHz) |
| Loop resistance | ≤ 290.00 Ω/km |
| Wave impedance | 100 Ω ±5 Ω (at 100 MHz) |
| Cable capacity | 48 nF/km (at 1 kHz) |
| Nominal voltage, cable | ≤ 100 V |
| Test voltage Core/Core | 700 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 700.00 V (50 Hz, 1 min.) |
| Minimum bending radius, fixed installation | 4 x D |
| Minimum bending radius, flexible installation | 8 x D |
| Smallest bending radius, fixed installation | 26 mm |
| Smallest bending radius, movable installation | 52 mm |
| Tensile strength | ≤ 100 N |
| | 71.3 dB (with 1 MHz) |

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| | |
|--|---|
| Near end crosstalk attenuation (NEXT) | 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) |
| Return attenuation (RL) | 32.3 dB (at 100 MHz) |
| | 23 dB (at 4 MHz) |
| | 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) |
| Shield attenuation | 20.1 dB (at 100 MHz) |
| | 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) | |
| Halogen-free | according to IEC 60754-1 |
| Flame resistance | according to IEC 60332-1-2 |
| Resistance to oil | in accordance with 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 |

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Drawings

Schematic diagram



Connector pin assignment plug RJ45

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Circuit diagram



Contact assignment of RJ45 plugs

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1408950>



EAC

Approval ID: 19060508

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Classifications

ECLASS

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

ETIM

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

UNSPSC

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

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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% |
|-------------------------------------|----------------------------|

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