



**Product:** [9463](#)

Blue Hose®, 1 Pr #20 Str TC, PE Ins Blu, Clr, Foil+TC Brd, PVC Jkt, CM

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### Product Description

Blue Hose® for Data Highway Plus, 1 Pair 20AWG (7x28) Tinned Copper, PE Insulation Blue & Clear, Overall Beldfoil®+Tinned Copper Braid(55%) Shield, Blue PVC Outer Jacket, CM

### Technical Specifications

#### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | harsh environment, Allen Bradley Data Highway communication interface between PLC processors, I/O devices, operator interfaces, computers and other intelligent devices, PLC processor interlocking, peer-to-peer messaging, remote programming, troubleshooting, I/O updates, etc. |
|------------------------|---|

#### Construction Details

##### Conductor

| Element | Number of Element | Size   | Stranding | Material           |
|---------|-------------------|--------|-----------|--------------------|
| Pair(s) | 1                 | 20 AWG | 7x28      | TC - Tinned Copper |

##### Insulation

| Element | Material          | Nom. Thickness     | Nom. Insulation Diameter | Color Code   | Notes                   |
|---------|-------------------|--------------------|--------------------------|--------------|-------------------------|
| Pair(s) | PE - Polyethylene | 0.019 in (0.48 mm) | 0.0755 in (1.92 mm)      | Clear & Blue | Twinax with rod fillers |

##### Outer Shield

| Shield Type | Material                | Coverage | Drainwire Type   |
|-------------|-------------------------|----------|------------------|
| Tape        | Bi-Laminate (Alum+Poly) | 100%     | 20 AWG (7x28) TC |
| Braid       | Tinned Copper (TC)      | 60%      |                  |

##### Outer Jacket

| Material                 | Nom. Thickness     | Nom. Diameter      |
|--------------------------|--------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.037 in (0.94 mm) | 0.238 in (6.05 mm) |

|                                   |                     |
|-----------------------------------|---------------------|
| Table Notes:                      | Jacket OD +/- 0.003 |
| Overall Cable Diameter (Nominal): | 0.238 in (6.05 mm)  |

#### Electrical Characteristics

##### Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Shield | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
|---------|--------------------|-------------------------------|---------------------------------|---|-------------------------------|------------------------|
| Pair(s) | 9.5 Ohm/1000ft     | 19.7 pF/ft (64.6 pF/m)        | 37 pF/ft                        | 36 pF/ft  | 78 Ohm                        | 66%                    |

|                        |                            |
|------------------------|----------------------------|
| Nom. Outer Shield DCR: | 4.1 Ohm/1000ft (13 Ohm/km) |
|------------------------|----------------------------|

##### High Frequency (Nominal/Typical)

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|---------|-----------------|-----------------------------------|
| Pair(s) | 1               | 0.6 dB/100ft                      |
|         | 10              | 2.1 dB/100ft                      |
|         | 50              | 5.0 dB/100ft                      |
|         | 100             | 7.5 dB/100ft                      |
|         | 200             | 11.0 dB/100ft                     |
|         | 400             | 16.0 dB/100ft                     |

## Voltage

| UL Voltage Rating                    |
|--------------------------------------|
| 300 V (CM, CL2), 300 V (UL AWM 2464) |

## Mechanical Characteristics

### Temperature

| UL Temperature | Operating      | Installation   | Storage        |
|----------------|----------------|----------------|----------------|
| 80°C           | -40°C to +80°C | -40°C To +80°C | -40°C to +80°C |

### Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 2.4 in (61 mm)  | 2.4 in (61 mm)    |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 48 lbs (22 kg) |
| Bulk Cable Weight: | 36 lbs/1000ft  |

## Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor, Sunlight Resistance   |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, IEC 60332-1-2   |
| CPR Compliance:                  | CPR Euroclass: Eca; CPR UKCA Class: Eca   |
| NEC / UL Compliance:             | Article 725, Article 800, CMCL2   |
| AWM Compliance:                  | AWM 2464  |
| CEC / C(UL) Compliance:          | CM  |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance:        | UKCA Mark   |
| Other Standard Compliance(s):    | P-7K-SC-182141-MSHA, Allen Bradley Part No. 1770-CD   |
| Plenum Number:                   | 89463   |

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.576 Revision Date: 04-14-2023 |
|----------------------|--|

## Part Numbers

### Variants

| Item #        | Color        | Putup Type | Length    | UPC/EAN       |
|---------------|--------------|------------|-----------|---------------|
| 9463.0030     | Blue         | Reel       | 30 m      | 8719605020550 |
| 9463.00U152   | Blue         | UnReel     | 152 m     | 8719605020574 |
| 9463.01152    | Blue         | Reel       | 152 m     | 8719605020598 |
| 9463.00305    | Blue         | Reel       | 305 m     | 8719605020567 |
| 9463.00U305   | Blue         | UnReel     | 305 m     | 8719605020581 |
| 9463.001000   | Blue         | Reel       | 1,000 m   | 8719605020536 |
| 9463.001829   | Blue         | Reel       | 1,829 m   | 8719605020543 |
| 9463 J22100   | Blue, Strong | Reel       | 100 ft    | 612825253549  |
| 9463 J22500   | Blue, Strong | Reel       | 500 ft    | 612825253570  |
| 9463 J22U500  | Blue, Strong | UnReel     | 500 ft    | 612825253532  |
| 9463 J221000  | Blue, Strong | Reel       | 1,000 ft  | 612825253556  |
| 9463 J22U1000 | Blue, Strong | UnReel     | 1,000 ft  | 612825253525  |
| 9463 J2212000 | Blue, Strong | Reel       | 2,000 ft  | 612825253563  |
| 9463 J226000  | Blue, Strong | Reel       | 6,000 ft  | 612825253587  |
| 9463.02305    | Brown        | Reel       | 305 m     | 8719605020604 |
| 9463 0011000  | Brown        | Reel       | 1,000 ft  | 612825253594  |
| 9463 00112000 | Brown        | Reel       | 2,000 ft  | 612825253617  |
| 9463.023050   | Brown        | Reel       | 3,050 m   | 8719605020611 |
| 9463 0016000  | Brown        | Reel       | 6,000 ft  | 612825253624  |
| 9463 00110000 | Brown        | Reel       | 10,000 ft | 612825253600  |
| 9463 0031000  | Orange       | Reel       | 1,000 ft  | 612825253631  |
| 9463 00312000 | Orange       | Reel       | 2,000 ft  | 612825253655  |
| 9463 0036000  | Orange       | Reel       | 6,000 ft  | 612825253662  |

|               |        |      |           |              |
|---------------|--------|------|-----------|--------------|
| 9463 00310000 | Orange | Reel | 10,000 ft | 612825253648 |
| 9463 0071000  | Violet | Reel | 1,000 ft  | 612825253679 |
| 9463 0076000  | Violet | Reel | 6,000 ft  | 612825253686 |

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