Belden



# Product: 9463F

Blue Hose®, 1 Pr #20 Str TC, PE Ins Blu, Clr, Foil+TC Brd, PVC Jkt, High Flex CM, AWM 2464

Request Sample

## Product Description

Blue Hose® for Data Highway Plus, 1 Pair 20AWG (42x36) Tinned Copper, PE Insulation Blue & Clear, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, Blue PVC Outer Jacket, High Flex, CM, AWM 2464

## Technical Specifications

### Product Overview

| | |
|---|---|
| Suitable Applications: | robotic, 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 | No. of Elements | Size | Stranding | Material |
|---|---|---|---|---|
| Pair(s) | 1 | 20 AWG | 42x36 | TC - Tinned Copper |

**Insulation**

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code | Notes |
|---|---|---|---|---|---|
| Pair(s) | PE - Polyethylene | 0.0185 in (0.470 mm) | 0.075 in (1.9 mm) | Clear & Blue | Twinax with rod fillers |

**Outer Shield**

| Shield Type | Material | Coverage |
|---|---|---|
| Tape | Bi-Laminate (Alum+Poly) | 100% |
| Braid | Tinned Copper (TC) | 85% |

**Outer Jacket**

| Material | Nom. Thickness | Nom. Diameter |
|---|---|---|
| PVC - Polyvinyl Chloride | 0.033 in (0.84 mm) | 0.243 in (6.17 mm) |

| | |
|---|---|
| Overall Cable Diameter (Nominal): | 0.243 in (6.17 mm) |

### Electrical Characteristics

**Electricals**

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedence | Nom. Delay | Nom. Inductance | Nom. Velocity of Prop. |
|---|---|---|---|---|---|---|---|
| Pair(s) | 9.5 Ohm/1000ft (31 Ohm/km) | 19.7 pF/ft (64.6 pF/m) | 37 pF/ft (120 pF/m) | 78 Ohm | 1.47 ns/ft | 0.12 µH/ft (0.39 µH/m) | 66% |

**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, CI2) |

## Mechanical Characteristics

**Temperature**

| UL Temperature | Operating |
| --- | --- |
| 80°C | -40°C to 80°C |

**Bend Radius**

| Stationary Min. | Installation Min. |
| --- | --- |
| 2.5 in (64 mm) | 2.5 in |

| | |
| --- | --- |
| Max. Pull Tension: | 40 lbs (18 kg) |
| Bulk Cable Weight: | 34 lbs/1000ft (51 kg/km) |

## Standards and Compliance

| | |
| --- | --- |
| Environmental Suitability: | Indoor |
| Flammability / Reaction to Fire: | UL1685 UL Loading, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| NEC / UL Compliance: | Article 725, Article 800, CM, CL2 |
| 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 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Other Standard Compliance(s): | P-7K-SC-182141-MSHA |

## History

| | |
| --- | --- |
| Update and Revision: | Revision Number: 0.293 Revision Date: 09-07-2025 |

## Part Numbers

**Variants**

| Item # | Color | UPC | Footnote |
| --- | --- | --- | --- |
| 9463F J221000 | Strong Blue | 612825253716 | C |

| | |
| --- | --- |
| Footnote: | C - CRATE REEL PUT-UP. |

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