



**Product:** [129463](#)

Blue Hose®, 1 Pr #20 Str TC, PE Ins Blu, Clr, Foil+TC Braid Shld, PVC Jkt, AIA Armor, PVC Jkt, CM

[Request Sample](#)

### 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, PVC Inner Jacket, Aluminum Interlock Armor, Blue PVC Outer Jacket, CM

### Technical Specifications

#### Product Overview

Suitable Applications:	exposure to rodent, crush, or cut through force, 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)	0.076 in (1.9 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%	

##### Inner Jacket

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

##### Armor

Armor Type & Material	Armor Thickness	Armor Material Diameter
AIA - Aluminum Interlock Armor	0.025 in (0.64 mm)	0.450 in (11.4 mm)

##### Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.050 in (1.3 mm)	0.550 in (14.0 mm)

Overall Cable Diameter (Nominal):	0.550 in (14.0 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 Impedence	Nom. Velocity of Prop.
Pair(s)	11.3 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 dB/100ft
	100	7.5 dB/100ft
	200	11 dB/100ft
	400	16 dB/100ft

#### Voltage

UL Voltage Rating
300 V

## Mechanical Characteristics

#### Temperature

UL Temperature	Operating
60°C	-40°C to +60°C

#### Bend Radius

Stationary Min.	Installation Min.
6.5 in (170 mm)	6.5 in (170 mm)

Max. Pull Tension:	200 lbs (91 kg)
Bulk Cable Weight:	133 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Indoor, Sunlight Resistance
Flammability / Reaction to Fire:	UL 1685 UL Loading, FT4
NEC / UL Compliance:	Article 725, Article 800, CM, PLTC
CEC / C(UL) Compliance:	CM, CMG, HLBCD
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)
Other Standard Compliance(s):	Allen Bradley Part No. 1770-CD

## History

Update and Revision:	Revision Number: 0.511 Revision Date: 01-20-2023
----------------------	--

## Part Numbers

#### Variants

Item #	Color	Putup Type	Length	UPC
129463 J221000	Blue, Strong	Reel	1,000 ft	612825110934

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.