



Product: [189463](#)

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

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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, PVC Inner Jacket, CCA Interlock Armor, Blue PVC Outer Jacket, PLTC

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.
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	1	20 AWG	7x28	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Color Code	Notes
Pair(s)	PE - Polyethylene	0.019 in (0.48 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)	55%	

Inner Jacket

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

Armor

Armor Type & Material
CCAA - Continuously Corrugated Aluminum Armor

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.050 in (1.3 mm)	0.515 in (13.1 mm)

Overall Cable Diameter (Nominal):	0.515 in (13.1 mm)
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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 (31 Ohm/km)	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)
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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 (PLTC)

Mechanical Characteristics

Temperature

UL Temperature	Operating
60°C	-20°C to +60°C

Bend Radius

Stationary Min.	Installation Min.
6 in (150 mm)	6 in

Max. Pull Tension:	205 lbs (93.0 kg)
Bulk Cable Weight:	121 lbs/1000ft (180 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Flammability / Reaction to Fire:	UL1685 UL Loading
NEC / UL Compliance:	Article 725, PLTC
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: 0.247 Revision Date: 05-31-2024
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