



**Product:** [189463](#)

Blue Hose®, (1 pr) 20 AWG (7x28) TC, PE/PVC, Foil+TC Braid Shld, Alum Armor, CM

[Request Sample](#)

## Product Description

One 20 AWG pair stranded (7x28) tinned copper conductors, polyethylene insulation, overall Beldfoil® (100% coverage) plus tinned copper braid shield (55% coverage), PVC inner jacket, continuously corrugated aluminum armor, PVC outer jacket.

## 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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### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
20	7x28	TC - Tinned Copper	0.038 in	1

Conductor Count:	2
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#### Insulation

Material
PE - Polyethylene

#### Color Chart

Number	Color
1	Clear & Blue

#### Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Alum / Poly	Beldfoil®	100 %	TC - Tinned Copper	20	7x28H
Braid	2	TC - Tinned Copper		55 %			

#### Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.515 in

### Construction and Dimensions

#### Stranding

Diameter
0.154 mm

#### Armor

Type of Armor	Material	Diameter over Armoring
Continuously Corrugated	Aluminum	0.415 mm

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
9.5 Ohm/1000ft	4.1 Ohm/1000ft

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
19.7 pF/ft	36 pF/ft

#### Inductance

Nominal Inductance
0.12 $\mu$ H/ft

#### Impedance

Nominal Characteristic Impedance
78 Ohm

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.6 dB/100ft
10 MHz	2.1 dB/100ft
50 MHz	5 dB/100ft
100 MHz	7.5 dB/100ft
200 MHz	11 dB/100ft
400 MHz	16 dB/100ft

#### Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.54 ns/ft	66 %

#### High Freq

Frequency [MHz]
1 MHz
10 MHz
50 MHz
100 MHz
200 MHz
400 MHz

#### Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	DC Resistance Unbalanced: .77 Ohms/1000 ft Max
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#### Temperature Range

UL Temp Rating:	60°C
Operating Temp Range:	-20°C To +60°C

#### Mechanical Characteristics

Bulk Cable Weight:	121 lbs/1000ft
Max Recommended Pulling Tension:	205 lbs
Min Bend Radius/Minor Axis:	6 in

#### Standards

Customer Part Number Reference Spec:	Allen Bradley P/N 1770-CD
NEC/(UL) Specification:	PLTC

#### Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes

EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

### Suitability

Suitability - Burial:	Yes
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

### Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
UL voltage rating:	300 V RMS

### Plenum/Non-Plenum

Plenum (Y/N):	No
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### History

Update and Revision:	Revision Number: 0.200 Revision Date: 04-28-2020
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