



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				

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 µH/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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