



**Product:** [11700A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, PVC Jkt, PVC Jkt, MSHA CMR

[Request Sample](#)

### Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, PVC Inner Jacket, PVC Outer Jacket, MSHA CMR

### Technical Specifications

#### Product Overview

Suitable Applications:	outdoor, mining, exposure to abrasion, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .

#### Construction Details

##### Conductor

Element	Size	Stranding	Material	Number of Pairs	Number of Element
Pair(s)	24 AWG	Solid	BC - Bare Copper	4	4

##### Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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##### Inner Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.202 in (5.13 mm)	Yes

##### Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.285 in (7.24 mm)	Yes

Overall Cable Diameter (Nominal):	0.285 in (7.24 mm)
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#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	66 pF/ft

##### Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
510 ns/100m	25 ns/100m	70%

##### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	65.3	65.3	63.3	63.3	63.8	60.8	20	100 ± 12	105 ± 10
4	4.0 dB/100m	56.3	56.3	52.3	52.3	51.7	48.7	23	100 ± 12	100 ± 10
8	5.7 dB/100m	51.8	51.8	46.1	46.1	45.7	42.7	24.5	100 ± 12	100 ± 10
10	6.4 dB/100m	50.3	50.3	43.9	43.9	43.8	40.8	25	100 ± 12	100 ± 10

16	8.1 dB/100m	47.3	47.3	39.1	39.1	39.7	36.7	25	100 ± 12	100 ± 10
20	9.2 dB/100m	45.8	45.8	35.2	35.2	37.7	34.7	25	100 ± 12	100 ± 10
25	10.3 dB/100m	44.3	44.3	34.1	34.1	35.8	32.8	24.3	100 ± 15	100 ± 10
31.25	11.6 dB/100m	42.9	42.9	31.3	31.3	33.9	30.9	23.6	100 ± 15	100 ± 10
62.5	16.8 dB/100m	38.4	38.4	21.6	21.6	27.8	24.8	21.5	100 ± 15	100 ± 10
100	21.7 dB/100m	35.3	35.3	17.1	17.1	23.8	20.8	20.1	100 ± 15	
155	27.7 dB/100m	32.5	32.5	4.7	4.7	19.9	16.9	19	100 ± 18	
200	32 dB/100m	30.8	30.8	3	3	17.7	14.7	19	100 ± 20	
250	36.4 dB/100m	29.3	29.3	0	0	15.8	12.8	18	100 ± 20	
300	40.5 dB/100m	28.2	28.2	0	0	14.2	11.2	18	100 ± 20	
310	41.3 dB/100m	27.9	27.9			13.9	10.9	18	100 ± 20	
350	44.3 dB/100m	27.2	27.2			12.9	9.9	17	100 ± 22	

#### Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX-Outdoor)

#### Mechanical Characteristics

##### Temperature

UL Temperature	Operating	Installation	Storage
60°C	-40°C To +75°C	-25°C To +75°C	-40°C To +85°C

##### Bend Radius

###### Stationary Min.

0.29 in (7.4 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	35 lbs/1000ft

#### Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Aerial - When supported by messenger wire
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800
CEC / C(UL) Compliance:	CMR
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
Third Party Performance Verification:	Category 5e
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	P-07-KA060005-MSHA, Ethernet/IP™ Compliant

#### Product Notes

Notes:	US Patent #'s 5, 606, 151; 5, 734, 126. EtherNet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Outer Shield Separator Material: Polyester.
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#### History

Update and Revision:	Revision Number: 0.517 Revision Date: 01-20-2023
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#### Part Numbers

##### Variants

Item #	Color	Putup Type	Length	UPC
11700A 0101000	Black	Reel	1,000 ft	612825107705
11700A 0103000	Black	Reel	3,000 ft	612825107712
11700A 0061000	Blue	Reel	1,000 ft	612825107682
11700A 0081000	Gray	Reel	1,000 ft	612825107699

11700A 0021000	Red	Reel	1,000 ft	612825107675
11700A 1NH1000	Teal	Reel	1,000 ft	612825107729

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