

Part Number: 121700A

Cat 5e Armored DataTuff®, (4 pr) 24 AWG Solid BC, PO/PVC/PVC, Alum Armor, CM



Product Description

Four Cat 5e 24 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, PVC inner jacket, aluminum interlocked armor, PVC outer jacket.

Product Specifications

Technical Specifications

Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, 350MHz Enhanced Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, RJ-45 Compatible, Flexible Applications, Armored for Extra Protection
-------------------------------	---

Construction and Dimensions

Conductor:

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
24	Solid	BC - Bare Copper	0.02 in	4

Total Number of Conductors:	8
------------------------------------	---

Insulation:

Material	Nominal Diameter	Nominal Wall Thickness
PO - Polyolefin	0.038 in	0.009 in

Color Chart 1:

Number	Color
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Stranding:

Lay Length
Yes mm

Innerjacket:

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.206 in	Yes

Outershield 1:

Material
Unshielded

Outerjacket 1:

Material	Nominal Diameter	Nominal Wall Thickness	Separator Material
Industrial Grade PVC - Polyvinyl Chloride	0.553 in	0.045 in	Polyester

Armor:

Type of Armor	Material	Diameter over Armoring
Interlocked Armor	Aluminum	0.463 mm

Electrical Characteristics

Conductor DCR:

Max. Conductor DCR	Max. DCR Unbalance
9 Ohm/1000ft	3 %

Capacitance:

Max. Capacitance Unbalance	Nom. Mutual Capacitance
66 pF/ft	15 pF/ft

Delay:

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
510 ns/100m	25 ns/100m	70 %

High Freq:

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)	Max./Min. Fitted Impedance
1 MHz	2 db/100m	65.3 dB	65.3 dB	63.3 dB	63.3 dB	63.8 dB	60.8 dB	20 dB	100 ± 12 Ohm	
4 MHz	4 db/100m	56.3 dB	56.3 dB	52.3 dB	52.3 dB	51.7 dB	48.7 dB	23 dB	100 ± 12 Ohm	
8 MHz	5.7 db/100m	51.8 dB	51.8 dB	46.1 dB	46.1 dB	45.7 dB	42.7 dB	24.5 dB	100 ± 12 Ohm	
10 MHz	6.4 db/100m	50.3 dB	50.3 dB	43.9 dB	43.9 dB	43.8 dB	40.8 dB	25 dB	100 ± 12 Ohm	
16 MHz	8.1 db/100m	47.3 dB	47.3 dB	39.1 dB	39.1 dB	39.7 dB	36.7 dB	25 dB	100 ± 12 Ohm	
20 MHz	9.2 db/100m	45.8 dB	45.8 dB	35.2 dB	35.2 dB	37.7 dB	34.7 dB	25 dB	100 ± 12 Ohm	
25 MHz	10.3 db/100m	44.3 dB	44.3 dB	34.1 dB	34.1 dB	35.8 dB	32.8 dB	24.3 dB	100 ± 15 Ohm	
31.25 MHz	11.6 db/100m	42.9 dB	42.9 dB	31.3 dB	31.3 dB	33.9 dB	30.9 dB	23.6 dB	100 ± 15 Ohm	
62.5 MHz	16.8 db/100m	38.4 dB	38.4 dB	21.6 dB	21.6 dB	27.8 dB	24.8 dB	21.5 dB	100 ± 15 Ohm	
100 MHz	21.7 db/100m	35.3 dB	35.3 dB	17.1 dB	17.1 dB	23.8 dB	20.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 10 Ohm
155 MHz	27.7 db/100m	32.5 dB	32.5 dB	4.7 dB	4.7 dB	19.9 dB	16.9 dB	19 dB	100 ± 18 Ohm	100 ± 10 Ohm
200 MHz	32 db/100m	30.8 dB	30.8 dB	3 dB	3 dB	17.7 dB	14.7 dB	19 dB	100 ± 20 Ohm	100 ± 10 Ohm
250 MHz	36.4 db/100m	29.3 dB	29.3 dB	0 dB	0 dB	15.8 dB	12.8 dB	18 dB	100 ± 20 Ohm	100 ± 10 Ohm
300 MHz	40.5 db/100m	28.2 dB	28.2 dB	0 dB	0 dB	14.2 dB	11.2 dB	18 dB	100 ± 20 Ohm	100 ± 10 Ohm
310 MHz	41.3 db/100m	27.9 dB	27.9 dB			13.9 dB	10.9 dB	18 dB	100 ± 20 Ohm	100 ± 10 Ohm
350 MHz	44.3 db/100m	27.2 dB	27.2 dB			12.9 dB	9.9 dB	17 dB	100 ± 22 Ohm	100 ± 10 Ohm
1 MHz										
4 MHz										
8 MHz										
10 MHz										
16 MHz										
20 MHz										
25 MHz										
31.25 MHz										
62.5 MHz										
100 MHz										
155 MHz										
200 MHz										
250 MHz										
300 MHz										
310 MHz										
350 MHz										

Voltage:

UL Voltage Rating	
300 V RMS	

Use

Suitability - Oil Resistance:	Yes
Suitability - Sunlight Resistance:	Yes
Max Recommended Pulling Tension:	40 lbs

Safety

CSA Flammability:	FT4
UL Flammability:	UL1685 UL Loading

Temperature Range

Installation Temp Range:	-25°C To +75°C
Operating Temp Range:	-40°C To +75°C
Storage Temp Range:	-40°C To +85°C

Mechanical Characteristics

Min Bend Radius/Minor Axis:	6.5 in
-----------------------------	--------

Part Number

Plenum (Y/N):	No
---------------	----

Standards

CA Prop 65 (CJ for Wire & Cable):	CA Prop 65 (CJ for Wire & Cable)
CEC/C(UL) Specification:	CEC/C(UL) Specification
MII Order #39 (China RoHS):	MII Order #39 (China RoHS)
NEC/(UL) Specification:	NEC/(UL) Specification
Other Specification:	Other Specification
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)

History

Notes:	US Patent #'s 5606151; 5734126 Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.
--------	---

Product Variants

Part Number	Color	Put-Up Type	Length
121700A 0081000	GRAY	Reel	1000 ft
121700A 0101000	BLACK	Reel	1000 ft
121700A 0103000	BLACK	Reel	3000 ft
121700A 0105000	BLACK	Reel	5000 ft

© 2016 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 herein 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 "AS IS" 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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure 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. This 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.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.