



121700A Paired - Category 5e DataTuff® Twisted Pair Cable

 	<p>Metric Version For more information please call 1-800-Belden1</p> <p><u>See Put-ups and Colors</u></p> <p>Color Code Chart : No. 8 for DataTwist Cables (Modified Western Electric).pdf</p>
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Description:

24 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, PVC inner jacket, rip cord, polyester wrap, aluminum interlocked armor, industrial grade outer PVC jacket. Sequential marking at one meter intervals.

SUITABLE APPLICATIONS:

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 Video, RS-422, RJ-45 Compatible, Flexible Applications, Armored for Extra Protection
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PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs	4
Total Number of Conductors	8
AWG	24
Stranding	Solid
Conductor Diameter	0.508 mm
Conductor Material	BC - Bare Copper

INSULATION:

Insulation Material	PO - Polyolefin
Nom. Insulation Wall Thickness	0.229 mm
Insulation Diameter	0.889 mm

Pair Color Code Chart :

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

INNER JACKET:

Inner Jacket Material	PVC - Polyvinyl Chloride
Inner Jacket Diameter	5.08 mm



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Inner Jacket Ripcord	Yes
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OVERALL CABLING:

Overall Cabling Separator Material	Polyester
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OUTER SHIELD:

Outer Shield Material	Unshielded
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OUTER JACKET:

Outer Jacket Material	Industrial Grade PVC - Polyvinyl Chloride
Outer Jacket Nominal Wall Thickness	1.143 mm

ARMORING/OUTER JACKET:

ARMORING :	
Armor Type	Interlocked
Armor Material	Aluminum
Diameter over Armor	11.176 mm

OUTER JACKET OVER ARMOR :	
Outer Jacket over Armor (y/n)	Yes
Outer Jacket Material Over Armor	PVC - Polyvinyl Chloride

OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter	13.462 mm
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MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-40°C To +75°C
Installation Temperature Range	-25°C To +75°C
Bulk Cable Weight	43.158 Kg/Km
Max. Recommended Pulling Tension	177.928 N
Min. Bend Radius (Install)	165.1 mm

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

NEC/(UL) Specification	CM, UL444
CEC/C(UL) Specification	CMG, HL
IEC Specification	11801 Category 5
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	10/01/2005
TIA/EIA Specification	568-B.2 Category 5e
Other Specification	NEMA WC-63.1 Category 5e, UL verified to Category 5e

FLAME TEST:

UL Flame Test	UL1685 FT4 Loading
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CSA Flame Test FT4

SUITABILITY:

Sunlight Resistance Yes

Oil Resistance Yes

PLENUM/NON-PLENUM:

Plenum (Y/N) N

ELECTRICAL CHARACTERISTICS:

Nom. Mutual Capacitance @ 1 KHz 49.215 pF/m

Maximum Capacitance Unbalance (pF/100 m) 66 pF/100 m

Nominal Velocity of Propagation 70 %

Maximum Delay (ns/100 m) 510 ns/100 m

Maximum Delay Skew (ns/100m) 25 ns/100 m

Maximum Conductor DC Resistance @ 20 Deg. C 9 Ohms/100 m

Maximum DCR Unbalance @ 20 Deg. C 3 %

Max. Operating Voltage - UL 300 V RMS

ELECTRICAL CHARACTERISTICS - PREMISE:

Premise Cable Electricals Table 1 :

Frequency (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min. Return Loss (dB)	Min. Structural Return Loss (dB)
1	2	65.3	65.3	63.3	63.3	20	
4	4	56.3	56.3	52.3	52.3	23	
8	5.7	51.8	51.8	46.1	46.1	24.5	
10	6.4	50.3	50.3	43.9	43.9	25	
16	8.1	47.3	47.3	39.1	39.1	25	
20	9.2	45.8	45.8	35.2	35.2	25	
25	10.3	44.3	44.3	34.1	34.1	24.3	
31.25	11.6	42.9	42.9	31.3	31.3	23.6	
62.5	16.8	38.4	38.4	21.6	21.6	21.5	
100	21.7	35.3	35.3	17.1	17.1	20.1	
155	27.7	32.5	32.5	4.7	4.7	19	
200	32	30.8	30.8	3.0	3.0	19	
250	36.4	29.3	29.3	>0	>0	18	
300	40.5	28.2	28.2	>0	>0	18	
310	41.3	27.9	27.9			18	
350	44.3	27.2	27.2			17	

Premise Cable Electricals Table 2 :



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Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	105 ± 10	63.8	60.8
4	100 ± 12	100 ± 10	51.7	48.7
8	100 ± 12	100 ± 10	45.7	42.7
10	100 ± 12	100 ± 10	43.8	40.8
16	100 ± 12	100 ± 10	39.7	36.7
20	100 ± 12	100 ± 10	37.7	34.7
25	100 ± 15	100 ± 10	35.8	32.8
31.25	100 ± 15	100 ± 10	33.9	30.9
62.5	100 ± 15	100 ± 10	27.8	24.8
100	100 ± 15	100 ± 10	23.8	20.8
155	100 ± 18	100 ± 10	19.9	16.9
200	100 ± 20	100 ± 10	17.7	14.7
250	100 ± 20	100 ± 10	15.8	12.8
300	100 ± 20	100 ± 10	14.2	11.2
310	100 ± 20	100 ± 10	13.9	10.9
350	100 ± 22	100 ± 10	12.9	9.9

NOTES:

Notes

US Patent #'s 5, 606, 151; 5, 734, 126 Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.

PUT-UPS AND COLORS:

Item	Description	Put-Up (M)	Ship Weight (kgs.)	Jacket Color	Notes
121700A 0081000	4 PR 24 ARM PVC CABLE	304.8	72.186	GRAY	C Z
121700A 0101000	4 PR 24 ARM PVC CABLE	304.8	72.186	BLACK	C Z
121700A 0103000	4 PR 24 ARM PVC CABLE	914.4	208.386	BLACK	C Z

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

Revision Number: 7

Revision Date: 10-10-2005



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