

**Detailed Specifications & Technical Data**



**1701A Paired - DataTwist® Enhanced Category 5e**

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

4 Pair UTP, 350MHz Enhanced Category 5e, Plenum Rated, 24 AWG Solid Bare Copper, FEP Insulation, Bonded Pairs, PVC Flamarrest Jacket, Rip Cord, Sequential Marking at Two Foot Intervals.

**SUITABLE APPLICATIONS:**

Suitable Applications	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments
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**PHYSICAL CHARACTERISTICS:**

**CONDUCTOR:**

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

**INSULATION:**

Insulation Material	FEP - Fluorinated Ethylene Propylene
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**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

**OUTER SHIELD:**

Outer Shield Material	Unshielded
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**OUTER JACKET:**

Outer Jacket Material Trade Name	Flamarrest®
Outer Jacket Material	LS PVC - Low Smoke Polyvinyl Chloride
Outer Jacket Ripcord	Yes

**OVERALL NOMINAL DIAMETER:**

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Overall Nominal Diameter	0.193 in.
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**MECHANICAL CHARACTERISTICS:**

Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	29 lbs/1000 ft.
Max. Recommended Pulling Tension	40 lbs.
Min. Bend Radius (Install)	0.25 in.

**APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:**

**APPLICABLE STANDARDS:**

NEC/(UL) Specification	CMP, UL444
CEC/C(UL) Specification	CMP
IEC Specification	11801 Category 5
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	UL910 Plenum
CSA Flame Test	FT6

**PLENUM/NON-PLENUM:**

Plenum (Y/N)	Y
Non-Plenum Number	1700A, 1700R

**ELECTRICAL CHARACTERISTICS:**

Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	66 pF/100 m
Nominal Velocity of Propagation	72 %
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 :	
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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	2.0	65.3	65.3	63.3	63.3	20.0	
4	4.0	56.3	56.3	52.3	52.3	23.0	
8	5.7	51.8	51.8	46.1	46.1	24.5	
10	6.4	50.3	50.3	43.9	43.9	25.0	
16	8.1	47.3	47.3	39.1	39.1	25.0	
20	9.2	45.8	45.8	35.2	35.2	25.0	
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	19.0	
200	32.0	30.8	30.8	3.0	3.0	19.0	
250	36.4	29.3	29.3	>0	>0	18.0	
300	40.5	28.2	28.2			18.0	
310	41.3	27.9	27.9			18.0	
350	44.3	27.2	27.2			17.0	

Premise Cable Electricals Table 2 :

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

**PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
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1701A 0021000	TW PR DATATWIST	1000	23	RED	C
1701A 002U1000	4 TW PR DATA-X	U1000	22	RED	
1701A 0031000	4 TW PR DATATWIST	1000	23	ORANGE	C
1701A 003U1000	4 TW PR DATATWIST	U1000	22	ORANGE	
1701A 0041000	4 TW PR DATATWIST	1000	23	YELLOW	C
1701A 004U1000	4 TW PR DATA-X	U1000	22	YELLOW	
1701A 0051000	4 TW PR DATATWIST	1000	23	GREEN, DARK	C
1701A 005U1000	4 TW PR DATA-X	U1000	22	GREEN, DARK	
1701A 0081000	4 TW PR DATATWIST	1000	23	GRAY	C
1701A 008U1000	4 TW PR DATATWIST	U1000	22	GRAY	
1701A 0091000	4 PR #24 DATATWIST PVC	1000	23	WHITE	C
1701A 009U1000	4 PR #24 DATATWIST PVC	U1000	22	WHITE	
1701A 0101000	4 TW PR DATATWIST	1000	23	BLACK	
1701A 010U1000	4 TW PR DATATWIST	U1000	22	BLACK	C
1701A 8771000	4 TW PR DATATWIST	1000	23	NATURAL	C
1701A 8773000	4 TW PR DATATWIST	3000	66	NATURAL	C
1701A 877U1000	4 TW PR DATA-X	U1000	22	NATURAL	
1701A B021000	4 TW PR DATATWIST	1000	23	PURPLE	C
1701A B02U1000	4 TW PR DATA-X	U1000	22	PURPLE	
1701A D151000	4 TW PR DATATWIST	1000	23	BLUE	C
1701A D153000	4 TW PR DATATWIST	3000	66	BLUE	C
1701A D15U1000	4 TW PR DATA-X	U1000	22	BLUE	

C = CRATE REEL PUT-UP.

Revision Number: 2      Revision Date: 07-12-2004

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