

**Detailed Specifications &
Technical Data**



1583A Paired - DataTwist® Category 5e

	<p>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:

4 Pair UTP, 200MHz Category 5e, Vertical Tray Rated, 24 AWG Solid Bare Copper, Polyolefin Insulation, PVC 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
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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	PO - Polyolefin
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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	PVC - Polyvinyl Chloride
Outer Jacket Ripcord	Yes

OVERALL NOMINAL DIAMETER:

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Overall Nominal Diameter	.195 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	35 lbs.
Min. Bend Radius (Install)	0.5 in.

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

NEC/(UL) Specification	CM, UL444
CEC/C(UL) Specification	CM
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	UL1581 Vertical Tray
CSA Flame Test	FT1

PLENUM/NON-PLENUM:

Plenum (Y/N)	N
Plenum Number	1585A

ELECTRICAL CHARACTERISTICS:

Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	330 pF/100 m
Nominal Velocity of Propagation	70 %
Maximum Delay (ns/100 m)	538 @ 100MHz ns/100 m
Maximum Delay Skew (ns/100m)	45 ns/100 m
Maximum Conductor DC Resistance @ 20 Deg. C	9.38 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	62.3	63.0	60.0	20.0	23.0
4	4.1	56.3	53.3	51.0	49.0	23.0	23.0
8	5.8	51.8	48.8	46.0	43.0	24.5	24.5
10	6.5	50.3	47.3	43.0	41.0	25.0	25.0
16	8.2	47.3	44.3	39.0	36.0	25.0	25.0
20	9.3	45.8	42.8	36.5	33.5	25.0	25.0
25	10.4	44.3	41.3	33.9	30.9	24.3	24.3
31.25	11.7	42.9	39.9	31.0	28.0	23.6	23.6
62.5	17.0	38.4	35.4	22.0	19.0	21.5	21.5
100	22.0	35.3	32.3	14.0	11.0	20.1	20.1
155	28.1	32.5	29.5	4.4	1.4	15.8	
200	32.0	30.8	27.8	4.0	1.0	15.0	

Premise Cable Electricals Table 2 :

Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	63.8	60.8
4	100 ± 15	100 ± 15	51.7	48.7
8	100 ± 15	100 ± 15	45.7	42.7
10	100 ± 15	100 ± 15	43.8	40.8
16	100 ± 15	100 ± 15	39.7	36.7
20	100 ± 15	100 ± 15	37.7	34.7
25	100 ± 15	100 ± 15	35.8	32.8
31.25	100 ± 15	100 ± 15	33.9	30.9
62.5	100 ± 15	100 ± 15	27.8	24.8
100	100 ± 15	100 ± 15	23.8	20.8
155	100 ± 25	100 ± 15	19.9	16.9
200	100 ± 25	100 ± 15	17.7	14.7

PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
1583A 0021000	4 PR #24 PP FR PVC	1000	21	RED	C
1583A 002U1000	4 PR #24 PP FR PVC	U1000	21	RED	
1583A 0031000	4 PR #24 PP FR PVC	1000	21	ORANGE	C
1583A 003U1000	4 PR #24 PP FR PVC	U1000	21	ORANGE	
1583A 0041000	4 PR #24 PP FR PVC	1000	21	YELLOW	C
1583A 004U1000	4 PR #24 PP FR PVC	U1000	21	YELLOW	
1583A 0051000	4 PR #24 PP FR PVC	1000	21	GREEN, DARK	C

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1583A 005U1000	4 PR #24 PP FR PVC	U1000	21	GREEN, DARK	
1583A 0061000	4 PR #24 PP FR PVC	1000	21	BLUE, LIGHT	C
1583A 0061640	4 PR #24 PP FR PVC	1640	34.44	BLUE, LIGHT	
1583A 0063000	4 PR #24 PP FR PVC	3000	63	BLUE, LIGHT	C
1583A 006U1000	4 PR #24 PP FR PVC	U1000	21	BLUE, LIGHT	
1583A 0091000	4 PR #24 PP FR PVC	1000	21	WHITE	C
1583A 0093000	4 PR #24 PP FR PVC	3000	63	WHITE	C
1583A 009U1000	4 PR #24 PP FR PVC	U1000	21	WHITE	
1583A 0101000	4 PR #24 PP FR PVC	1000	21	BLACK	C
1583A 010U1000	4 PR #24 PP FR PVC	U1000	21	BLACK	
1583A 0121000	4 PR #24 PP FR PVC	1000	21	PINK	C
1583A 012U1000	4 PR #24 PP FR PVC	U1000	21	PINK	
1583A F6H1000	4 PR #24 PP FR PVC	1000	21	GRAY, DARK PEARL	C
1583A F6H1640	4 PR #24 PP FR PVC	1640	34.44	GRAY, DARK PEARL	
1583A F6H3000	4 PR #24 PP FR PVC	3000	63	GRAY, DARK PEARL	C
1583A F6HU1000	4 PR #24 PP FR PVC	U1000	21	GRAY, DARK PEARL	

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 11-08-2004

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