

**Detailed Specifications &  
Technical Data**



**1871A Paired - DataTwist® Category 5**

	<p><b>For more information please call</b> <b>1-800-Belden1</b></p> <p><u>See Put-ups and Colors</u></p> <p><b>Color Code Chart : No. 4 for Paired Cables.pdf</b></p>
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**Description:**

25 Pair UTP, 100MHz Category 5, Plenum Rated, 24 AWG Solid Bare Copper, FEP Insulation, FEP Jacket, Rip Cord, Sequential Marking at Two Foot Intervals

**SUITABLE APPLICATIONS:**

Suitable Applications	Premise Backbone 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	25
Total Number of Conductors	50
AWG	24
Stranding	Solid
Conductor Material	BC - Bare Copper

**INSULATION:**

Insulation Material	FEP - Fluorinated Ethylene Propylene
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Pair Color Code Chart :

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Number	Color	Number	Color
1	White/Blue Stripe & Blue	14	Black/Brown Stripe & Brown
2	White/Orange Stripe & Orange	15	Black/Gray Stripe & Gray
3	White/Green Stripe & Green	16	Yellow/Blue Stripe & Blue
4	White/Brown Stripe & Brown	17	Yellow/Orange Stripe & Orange
5	White/Gray Stripe & Gray	18	Yellow/Green Stripe & Green
6	Red/Blue Stripe & Blue	19	Yellow/Brown Stripe & Brown
7	Red/Orange Stripe & Orange	20	Yellow/Gray Stripe & Gray
8	Red/Green Stripe & Green	21	Purple/Blue Stripe & Blue
9	Red/Brown Stripe & Brown	22	Purple/Orange Stripe & Orange
10	Red/Gray Stripe & Gray	23	Purple/Green Stripe & Green
11	Black/Blue Stripe & Blue	24	Purple/Brown Stripe & Brown
12	Black/Orange Stripe & Orange	25	Purple/Gray Stripe & Gray
13	Black/Green Stripe & Green		

**OUTER SHIELD:**

Outer Shield Material	Unshielded
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**OUTER JACKET:**

Outer Jacket Material	FEP - Fluorinated Ethylene Propylene
Outer Jacket Ripcord	Yes

**OVERALL NOMINAL DIAMETER:**

Overall Nominal Diameter	.435 in.
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**MECHANICAL CHARACTERISTICS:**

Operating Temperature Range	-40°C To +150°C
Bulk Cable Weight	120 lbs/1000 ft.
Max. Recommended Pulling Tension	150 lbs.
Min. Bend Radius (Install)	4.8 in.

**APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:**

**APPLICABLE STANDARDS:**

NEC/(UL) Specification	CMP, UL444
CEC/C(UL) Specification	CMP
TIA/EIA Specification	568-B.2 Category 5
Other Specification	NEMA WC-63.1 Category 5, UL Verified to Category 5

**FLAME TEST:**

UL Flame Test	UL910 Plenum
CSA Flame Test	FT6

**PLENUM/NON-PLENUM:**

Plenum (Y/N)	Y
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Non-Plenum Number 1864A

**ELECTRICAL CHARACTERISTICS:**

Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	330 pF/100 m
Nominal Velocity of Propagation	72 %
Maximum Delay (ns/100 m)	538 @ 100 MHz 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	5 %
Max. Operating Voltage - UL	300 V RMS

**ELECTRICAL CHARACTERISTICS - PREMISE:**

Premise Cable Electricals :

Frequency (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. Structural Return Loss (dB)	Fitted Impedance (Ohms)
1	2.0		62.3	23.0	100 ± 15%
4	4.1		53.3	23.0	100 ± 15%
8	5.8		48.8	23.0	100 ± 15%
10	6.5		47.3	23.0	100 ± 15%
16	8.2		44.3	23.0	100 ± 15%
20	9.3		42.8	23.0	100 ± 15%
25	10.4		41.3	20.0	100 ± 15%
31.25	11.7		39.9	21.1	100 ± 15%
62.5	17.0		35.4	18.0	100 ± 15%
100	22.0		32.3	16.0	100 ± 15%

**NOTES:**

Notes Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2, Category 5.

**PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
1871A H8M1000	25 PR #24 FEP FEP	1000	131	BLUE, TINT	C
1871A H8N1000	25 PR #24 FEP FEP	1000	131	WHITE, TINT	C

C = CRATE REEL PUT-UP.

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**BELDEN**Cable™

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