


**Detailed Specifications & Technical Data**



**7919A Paired - DataTuff® Category 5e**

	<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. 8 for DataTwist Cables (Modified Western Electric).pdf</b></p>
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**Description:**

4 twisted pairs shielded, 24 AWG solid bare copper conductors, riser rated, polyolefin insulation, foil shield bonded to industrial grade oil res sun res PVC jacket, drain wire, rip cord. Sequential marking at two foot intervals.

**SUITABLE APPLICATIONS:**

Suitable Applications	Industrial Ethernet Cable, Harsh Environments, 100MHz Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Video, RS-422, CMX - Outdoor, RJ-45 Compatible, 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	PO - Polyolefin
Nom. Insulation Wall Thickness	.010 in.

**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 Trade Name	Beldfoil®
Outer Shield Type	Tape
Outer Shield Material	Aluminum Foil-Polyester Tape
Outer Shield % Coverage	100 %

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<b>OUTER SHIELD DRAIN WIRE :</b>	
Outer Shield Drain Wire AWG	24
Outer Shield Drain Wire Stranding	7x32
Outer Shield Drain Wire Conductor Material	TC - Tinned Copper

<b>OUTER JACKET:</b>	
Outer Jacket Material	Industrial Grade PVC - Polyvinyl Chloride
Outer Jacket Ripcord	Yes

<b>OVERALL NOMINAL DIAMETER:</b>	
Overall Nominal Diameter	.265 in.

<b>MECHANICAL CHARACTERISTICS:</b>	
Operating Temperature Range	-40°C To +75°C
Installation Temperature Range	-25°C To +75°C
Bulk Cable Weight	30 lbs/1000 ft.
Max. Recommended Pulling Tension	25 lbs.
Min. Bend Radius (Install)	1 in.

**APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:**

<b>APPLICABLE STANDARDS:</b>	
NEC/(UL) Specification	CMR, CMX-Outdoor, UL444
CEC/C(UL) Specification	CMR
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

<b>FLAME TEST:</b>	
UL Flame Test	UL1666 Riser
CSA Flame Test	FT4

<b>SUITABILITY:</b>	
Suitability - Outdoor	Yes
Sunlight Resistance	Yes
Oil Resistance	Yes

<b>PLENUM/NON-PLENUM:</b>	
Plenum (Y/N)	N

<b>ELECTRICAL CHARACTERISTICS:</b>	
Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	330 pF/100 m
Nominal Velocity of Propagation	70 %

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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 :

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
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

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

**NOTES:**

Notes	Operating temperatures are subject to length de-rating. Cable passes -40°C Cold Bend per UL 1581.
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**PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
7919A 0061000	4 PR #24 PP FS PVC	1000	35	BLUE, LIGHT	
7919A 0101000	4 PR #24 PP FS PVC	1000	35	BLACK	C

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7919A 0102000	4 PR #24 PP FS PVC	2000	68	BLACK	C
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C = CRATE REEL PUT-UP.

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