

7931A Multi-Conductor - Category 6 DataTwist® Twisted Pair Cable



For more Information
please call

1-800-Belden1



Description

23 AWG Bonded-Pairs solid bare copper conductors, FEP insulation, sunlight- oil- and gas-resistant FEP jacket. Sequential marking at two foot intervals.

Suitable Applications (Overall):

Suitable Applications

Industrial Ethernet Cable, Harsh Environments, 350MHz Enhanced Category 6, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, RJ-45 Compatible, High and Low Temperature, Oil and Gasoline Exposure, Limited Combustible FHC 25/50

Physical Characteristics (Overall):

Conductor:

AWG

# Pairs	AWG	Stranding	Conductor Material
4.000	23	Solid	BC - Bare Copper

Insulation:

Insulation Material

Insulation Material
FEP - Fluorinated Ethylene Propylene

Outer Shield:

Outer Shield Material

Outer Shield Material
Unshielded

Outer Jacket:

Outer Jacket Material

Outer Jacket Material
FEP - Fluorinated Ethylene Propylene

Overall Cabling:

Overall Cabling Fillers

Rod Center Member

Overall Nominal Diameter:

5.4356 mm

Pair:

Pair Color Code Chart

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

Mechanical Characteristics (Overall):

Operating Temperature Range -70°C To +150°C

Installation Temperature Range -55°C To +150°C

Bulk Cable Weight: 41.670 Kg/Km

Max. Recommended Pulling Tension: 177.928 N

Min. Bend Radius (Install)/Minor Axis: 12.700 mm

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Applicable Specifications and Agency Compliance (Overall):

Applicable Standards:

NEC/(UL) Specification	FHC 25/50, CMP, UL444
NEC Articles	NFPA 259
CEC/C(UL) Specification	CMP
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy)	04/01/2005
TIA/EIA Specification	568-B.2-1 Category 6
Other Specification	UL verified to Category 6

Flame Test:

UL Flame Test	UL723 (NFPA 255), NFPA 262
CSA Flame Test	FT6

Suitability:

Oil Resistance	Yes
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Plenum/Non-Plenum:

Plenum (Y/N)	Y
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Electrical Characteristics (Overall):

Nom. Mutual Capacitance

Capacitance (pF/m)
49.215

Nominal Velocity of Propagation

VP (%)
72

Maximum Capacitance Unbalance (pF/100 m) 330

Maximum Delay

Delay (ns/100 m)
537 @ 100MHz

Max. Delay Skew

Delay Skew (ns/100 m)
45

Maximum Conductor DC Resistance

DCR @ 20°C (Ohm/100 m)
9.380

Max. Operating Voltage - UL

Voltage
300 V RMS

Maximum DCR Unbalanced

DCR Unbalance @ 20°C (%)
5.000

Electrical Characteristics-Premise (Overall):

Premise Cable Electrical Table 1

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)	Min. SRL (dB)
1	2.000	74.300	72.300	72.300	70.300	20.000	na
4	3.800	65.300	63.300	61.500	59.500	23.000	na
8	5.300	60.800	58.800	55.400	53.400	24.500	na
10	6.000	59.300	57.300	53.300	51.300	25.000	na
16	7.600	56.200	54.300	48.700	46.700	25.000	na
20	8.500	54.800	52.800	46.300	44.300	25.000	na
25	9.500	53.300	51.300	43.800	41.800	24.300	na

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31.250	10.700	51.900	49.900	41.200	39.200	23.600	na
62.500	15.400	47.400	45.400	32.000	30.000	21.500	na
100	19.800	44.300	42.300	24.500	22.500	20.100	na
155	25.200	41.500	39.500	16.300	14.300	18.800	na
200	29.000	39.800	37.800	10.800	8.800	18.000	na
250	32.800	38.300	36.300	5.500	3.500	17.300	na

Premise Cable Electrical Table 2

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	67.800	64.800
4	100 ± 15	100 ± 15	55.800	52.700
8	100 ± 15	100 ± 15	49.700	46.700
10	100 ± 15	100 ± 15	47.800	44.800
16	100 ± 15	100 ± 15	43.700	40.700
20	100 ± 15	100 ± 15	41.800	38.700
25	100 ± 15	100 ± 15	39.800	36.800
31.250	100 ± 15	100 ± 15	37.900	34.900
62.500	100 ± 15	100 ± 15	31.900	28.800
100	100 ± 15	100 ± 15	27.800	24.800
155	100 ± 22	100 ± 15	23.900	20.900
200	100 ± 22	100 ± 15	21.800	18.700
250	100 ± 32	100 ± 15	19.800	16.800

Notes (Overall):

Notes US Patents 5, 606, 151& 5, 573, 126. Operating temperatures subject to length de-rating.

Notes (Cont'd.) Cable passes -70C Cold Bend per UL 1581.

PUT UPS AND COLORS:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7931A 0101000	305 MT	15.876 KG	BLACK		4 PR #23 FEP FEP BLK

Notes:

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