# **Detailed Specifications & Technical Data**

**ENGLISH MEASUREMENT VERSION** 



# 7924A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable



For more Information please call

1-800-Belden1





# **Description**

24 AWG Bonded-Pairs stranded (7x32) tinned copper conductors, polyolefin insulation, industrial grade sunlight- and oil-resistant PVC jacket. Sequential marking at two foot intervals.

# Suitable Applications (Overall):

Suitable Applications

Industrial Ethernet Cable, Harsh Environments, 350MHz Enhanced Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, CMX - Outdoor, RJ-45 Compatible, Flexible Applications

# **Physical Characteristics (Overall):**

### Conductor:

**AWG** 

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
4.000	24	7x32	TC - Tinned Copper	0.022

#### Insulation:

Insulation Material

Insulation Material	Wall Thickness (in.)	Dia. (in.)
PO - Polyolefin	0.008	0.037

## **Outer Shield:**

Outer Shield Material



#### Outer Jacket:

Outer Jacket Material

Outer Jacket Material	Nom. Wall Thickness (in.)		
Industrial Grade PVC - Polyvinyl Chloride	0.030		

### **Overall Cabling:**

Overall Nominal Diameter:

### 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	-40°C To +75°C
Storage Temperature Range	-25°C To +75°C
Installation Temperature Range	-25°C To +75°C
Bulk Cable Weight:	26 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius (Install)/Minor Axis:	0.250 in.

0.242 in.

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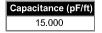
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# Applicable Specifications and Agency Compliance (Overall):

Applicable Standards: NEC/(UL) Specification	CMR, CMX-Outdoor, UL444
CEC/C(UL) Specification	CMR
IEC Specification	11801 Category 5e Patch
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy)	01/01/2004
TIA/EIA Specification	568-B.2 Category 5e Patch
Other Specification	NEMA WC-63.1 Category 5, ICEA 661, Category 5e Patch, UL verified to TIA/EI-568-B.2, Category 5e
Flame Test: UL Flame Test	UL1666 Riser
CSA Flame Test	FT4
Suitability: Suitability - Indoor	Yes
Suitability - Outdoor	Yes
Sunlight Resistance	Yes
Oil Resistance	Yes
Plenum/Non-Plenum: Plenum (Y/N)	No

# **Electrical Characteristics (Overall):**

Nom. Mutual Capacitance



Nominal Velocity of Propagation



Maximum Capacitance Unbalance (pF/100 m)

66

Maximum Delay

Delay (ns/100 m) 510.000

Max. Delay Skew

Delay Skew (ns/100 m) 25

Maximum Conductor DC Resistance

DCR @ 20°C (Ohm/100 m) 9.000

Max. Operating Voltage - UL

Voltage 300 V RMS

Maximum DCR Unbalanced

DCR Unbalance @ 20°C (%) 3.000

# **Electrical Characteristics-Premise (Overall):**

Premise Cable Electrical Table 1

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.400	65.300	65.300	62.900	20.000
4	4.800	56.300	56.300	51.500	23.000

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8	6.800	51.800	51.800	45.000	24.500
10	7.700	50.300	50.300	42.600	25.000
16	9.700	47.300	47.300	37.500	25.000
20	11.000	45.800	45.800	34.800	25.000
25	12.400	44.300	44.300	31.900	24.300
31.250	13.900	42.900	42.900	29.000	23.600
62.500	20.200	38.400	38.400	18.300	21.500
100	26.000	35.300	35.300	9.200	20.100
155	33.200	32.500	32.500	0	19.000
200	38.400	30.800	30.800		19.000
250	43.700	29.300	29.300		18.000
300	48.600	28.200	28.200		18.000
310	49.500	27.900	27.900		18.000
350	53.200	27.200	27.200		17.000

### Premise Cable Electrical Table 2

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	105 ± 10	63.800	60.800
4	100 ± 12	100 ± 10	51.700	48.700
8	100 ± 12	100 ± 10	45.700	42.700
10	100 ± 12	100 ± 10	43.800	40.800
16	100 ± 12	100 ± 10	39.700	36.700
20	100 ± 12	100 ± 10	37.700	34.700
25	100 ± 15	100 ± 10	35.800	32.800
31.250	100 ± 15	100 ± 10	33.900	30.900
62.500	100 ± 15	100 ± 10	27.800	24.800
100	100 ± 18	100 ± 10	23.800	20.800
155	100 ± 18	100 ± 10	19.900	16.900
200	100 ± 20	100 ± 10	17.700	14.700
250	100 ± 20	100 ± 10	15.800	12.800
300	100 ± 20	100 ± 10	14.200	11.200
310	100 ± 20	100 ± 10	13.900	10.900
350	100 ± 22	100 ± 10	12.900	9.900

# Notes (Overall):

Notes

US Patents 5, 606, 151; 5, 734, 126; 5, 763, 823. EtherNet/IP is a trademark of ControlNet Internation, Ltd. under license by Open DeviceNet Vendor Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.

## **PUT UPS AND COLORS:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7924A 0021000	1,000 FT	30.000 LB	RED	С	4 PR #24 PP PVC RED
7924A 0101000	1,000 FT	30.000 LB	BLACK	С	4 PR #24 PP PVC BLK
7924A 0102000	2,000 FT	58.000 LB	BLACK	С	4 PR #24 PP PVC BLK
7924A 1NH1000	1,000 FT	30.000 LB	TEAL 1NH	С	4 PR #24 PP PVC TEAL1NH

#### Notes:

C = CRATE REEL PUT-UP.

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