



REPRESENTATIVE IMAGE

**Product:** [7923A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, PVC Jkt, MSHA CMR

Request Sample

## Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, PVC Outer Jacket, MSHA CMR

## Technical Specifications

### Product Overview

Suitable Applications:	mining, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> .

### Construction Details

#### Conductor

AWG	Stranding	Material	Number of Pairs
24	Solid	BC - Bare Copper	4

#### Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	0.035	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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#### Outer Jacket Material

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.230 in	Yes

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance	Nom. Mutual Capacitance
9 Ohm/1000ft	3.0%	66 pF/ft	15 pF/ft

#### Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
510 ns/100m	25 ns/100m	70%

#### High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.4 dB/100m	65.3 dB	65.3 dB	62.9 dB	62.9 dB	63.8 dB	60.8 dB	20 dB	100 ± 12 Ohm	105 ± 10
4 MHz	4.8 dB/100m	56.3 dB	56.3 dB	51.5 dB	51.5 dB	51.7 dB	48.7 dB	23.6 dB	100 ± 12 Ohm	100 ± 10
8 MHz	6.8 dB/100m	51.8 dB	51.8 dB	45.0 dB	45.0 dB	45.7 dB	42.7 dB	25.4 dB	100 ± 12 Ohm	100 ± 10
10 MHz	7.7 dB/100m	50.3 dB	50.3 dB	42.6 dB	42.6 dB	43.8 dB	40.8 dB	26 dB	100 ± 12 Ohm	100 ± 10
16 MHz	9.7 dB/100m	47.3 dB	47.3 dB	37.5 dB	37.5 dB	39.7 dB	36.7 dB	26 dB	100 ± 12 Ohm	100 ± 10
20 MHz	11.0 dB/100m	45.8 dB	45.8 dB	34.8 dB	34.8 dB	37.7 dB	34.7 dB	26 dB	100 ± 12 Ohm	100 ± 10
25 MHz	12.4 dB/100m	44.3 dB	44.3 dB	31.9 dB	31.9 dB	35.8 dB	32.8 dB	25.5 dB	100 ± 15 Ohm	100 ± 10
31.25 MHz	13.9 dB/100m	42.9 dB	42.9 dB	29.0 dB	29.0 dB	33.9 dB	30.9 dB	25 dB	100 ± 15 Ohm	100 ± 10
62.5 MHz	20.2 dB/100m	38.4 dB	38.4 dB	18.3 dB	18.3 dB	27.8 dB	24.8 dB	23.5 dB	100 ± 15 Ohm	100 ± 10

100 MHz	26 dB/100m	35.3 dB	35.3 dB	9.2 dB	9.2 dB	23.8 dB	20.8 dB	22.5 dB	100 ± 15 Ohm	100 ± 10
155 MHz	33.2 dB/100m	32.5 dB	32.5 dB	4.7 dB	4.7 dB	19.9 dB	16.9 dB	19 dB	100 ± 18 Ohm	100 ± 10
200 MHz	38.4 dB/100m	30.8 dB	30.8 dB	3 dB	3 dB	17.7 dB	14.7 dB	19 dB	100 ± 20 Ohm	100 ± 10
250 MHz	43.7 dB/100m	29.3 dB	29.3 dB	0 dB	0 dB	15.8 dB	12.8 dB	18 dB	100 ± 20 Ohm	100 ± 10
300 MHz	48.6 dB/100m	28.2 dB	28.2 dB	0 dB	0 dB	14.2 dB	11.2 dB	18 dB	100 ± 20 Ohm	100 ± 10
310 MHz	49.5 dB/100m	27.9 dB	27.9 dB			13.9 dB	10.9 dB	18 dB	100 ± 20 Ohm	100 ± 10
350 MHz	53.2 dB/100m	27.2 dB	27.2 dB			12.9 dB	9.9 dB	17 dB	100 ± 22 Ohm	100 ± 10

#### Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX-Outdoor)

#### Mechanical Characteristics

##### Temperature

UL Rating	Operating	Installation	Storage
75°C	-40°C To +75°C	-25°C To +75°C	-25°C To +75°C

##### Bend Radius

Stationary Min.
2.5 in

Max. Pull Tension:	40 lbs
Bulk Cable Weight:	27 lbs/1000ft

#### Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL1666 Riser, FT4, FT4, 1202 Vertical Tray, IEC 60332-1-2
NEC / UL Compliance:	Article 800, CMR;CMX-Outdoor;CMG
CEC / C(UL) Compliance:	CMX-Outdoor;CMG
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
CPR Euroclass:	Eca
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	Ethernet/IP™ Compliant

#### Part Number

##### Variants

Item #	Color	Putup Type	Length	UPC
7923A 0101000	Black	Reel	1,000 ft	612825191353
7923A 0102000	Black	Reel	2,000 ft	612825191360
7923A 0061000	Blue	Reel	1,000 ft	612825191339
7923A 0081000	Gray	Reel	1,000 ft	612825191346
7923A 0021000	Red	Reel	1,000 ft	612825191322
7923A 1NH1000	Teal	Reel	1,000 ft	612825191377

#### Product Notes

Notes:	Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.
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#### History

Update and Revision:	Revision Number: 0.396 Revision Date: 03-02-2021
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