



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 https://www.belden.com/resources/patents .

Construction Details

Conductor

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

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	0.035 in (0.89 mm)	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	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.230 in (5.84 mm)	Yes

Overall Cable Diameter (Nominal):	0.230 in (5.84 mm)
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Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km	66 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
510 ns/100m	25 ns/100m	70%

High Frequency

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	2.4 dB/100m	65.3	65.3	62.9	62.9	63.8	60.8	20	100 ± 12 Ohm	105 ± 10 Ohm
4	4.8 dB/100m	56.3	56.3	51.5	51.5	51.7	48.7	23.6	100 ± 12 Ohm	100 ± 10 Ohm
8	6.8 dB/100m	51.8	51.8	45.0	45.0	45.7	42.7	25.4	100 ± 12 Ohm	100 ± 10 Ohm
10	7.7 dB/100m	50.3	50.3	42.6	42.6	43.8	40.8	26	100 ± 12 Ohm	100 ± 10 Ohm
16	9.7 dB/100m	47.3	47.3	37.5	37.5	39.7	36.7	26	100 ± 12 Ohm	100 ± 10 Ohm
20	11.0 dB/100m	45.8	45.8	34.8	34.8	37.7	34.7	26	100 ± 12 Ohm	100 ± 10 Ohm
25	12.4 dB/100m	44.3	44.3	31.9	31.9	35.8	32.8	25.5	100 ± 15 Ohm	100 ± 10 Ohm
31.25	13.9 dB/100m	42.9	42.9	29.0	29.0	33.9	30.9	25	100 ± 15 Ohm	100 ± 10 Ohm

62.5	20.2 dB/100m	38.4	38.4	18.3	18.3	27.8	24.8	23.5	100 ± 15 Ohm	100 ± 10 Ohm
100	26.0 dB/100m	35.3	35.3	9.2	9.2	23.8	20.8	22.5	100 ± 15 Ohm	100 ± 10 Ohm
155	33.2 dB/100m	32.5	32.5	4.7	4.7	19.9	16.9	19	100 ± 18 Ohm	100 ± 10 Ohm
200	38.4 dB/100m	30.8	30.8	3	3	17.7	14.7	19	100 ± 20 Ohm	100 ± 10 Ohm
250	43.7 dB/100m	29.3	29.3	0	0	15.8	12.8	18	100 ± 20 Ohm	100 ± 10 Ohm
300	48.6 dB/100m	28.2	28.2	0	0	14.2	11.2	18	100 ± 20 Ohm	100 ± 10 Ohm
310	49.5 dB/100m	27.9	27.9			13.9	10.9	18	100 ± 20 Ohm	100 ± 10 Ohm
350	53.2 dB/100m	27.2	27.2			12.9	9.9	17	100 ± 22 Ohm	100 ± 10 Ohm

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	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 (64 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	27 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1666 Riser, FT4, FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
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
Third Party Performance Verification:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), 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

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: 0.417 Revision Date: 12-15-2021
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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

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