



REPRESENTATIVE IMAGE

**Product:** [7929A](#)

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

[Request Sample](#)

## Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, CMR CMG

## 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	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

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

Type	Material	Coverage	Drainwire Type
Tape	Polyester + Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

#### Outer Jacket Material

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.265 in	No

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance	Nom. Mutual Capacitance	Nom. Velocity of Prop.
9.38 Ohm/1000ft	3%	330 pF/ft	15 pF/ft	70%

#### Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
538 ns/100m	45 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]	Min. SRL (Structural Return Loss)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2 dB/100m	65.3 dB	62.3 dB	63 dB	60 dB	63.8 dB	60.8 dB	20 dB	23 dB	100 ± 15 Ohm	100 ± 15 Ohm
4 MHz	4.1 dB/100m	56.3 dB	53.3 dB	51 dB	49 dB	51.7 dB	48.7 dB	23 dB	23 dB	100 ± 15 Ohm	100 ± 15
8 MHz	5.8 dB/100m	51.8 dB	48.8 dB	46 dB	43 dB	45.7 dB	42.7 dB	24.5 dB	24.5 dB	100 ± 15 Ohm	100 ± 15
10 MHz	6.5 dB/100m	50.3 dB	47.3 dB	43 dB	41 dB	43.8 dB	40.8 dB	25 dB	25 dB	100 ± 15 Ohm	100 ± 15
16 MHz	8.2 dB/100m	47.3 dB	44.3 dB	39 dB	36 dB	39.7 dB	36.7 dB	25 dB	25 dB	100 ± 15 Ohm	100 ± 15

20 MHz	9.3 dB/100m	45.8 dB	42.8 dB	36.5 dB	33.5 dB	37.7 dB	34.7 dB	25 dB	25 dB	100 ± 15 Ohm	100 ± 15
25 MHz	10.4 dB/100m	44.3 dB	41.3 dB	33.9 dB	30.9 dB	35.8 dB	32.8 dB	24.3 dB	24.3 dB	100 ± 15 Ohm	100 ± 15
31.25 MHz	11.7 dB/100m	42.9 dB	39.9 dB	31 dB	28 dB	33.9 dB	30.9 dB	23.6 dB	23.6 dB	100 ± 15 Ohm	100 ± 15
62.5 MHz	17 dB/100m	38.4 dB	35.4 dB	22 dB	19 dB	27.8 dB	24.8 dB	21.5 dB	21.5 dB	100 ± 15 Ohm	100 ± 15
100 MHz	22 dB/100m	35.3 dB	32.3 dB	14 dB	11 dB	23.8 dB	20.8 dB	20.1 dB	20.1 dB	100 ± 15 Ohm	
200 MHz	32.4 dB/100m		27.8 dB		1 dB		14.7 dB		15 dB	100 ± 25 Ohm	

#### Voltage

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

#### Mechanical Characteristics

#### Temperature

UL Rating	Operating	Installation	Storage
60°C	-40°C To +75°C	-25°C To +75°C	-40°C To +80°C

#### Bend Radius

Stationary Min.
0.5 in

Max. Pull Tension:	20 lbs
Bulk Cable Weight:	30 lbs/1000ft

#### Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL1666 Riser, FT4, FT4, IEC 60332-1-2
NEC / UL Compliance:	800, CMR;CMX-Outdoor
CEC / C(UL) Compliance:	CMG
Data Category:	Category 5e
CPR Euroclass:	Eca
European Directive Compliance:	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)

#### Part Number

#### Variants

Item #	Color	Putup Type	Length	UPC
7929A 0101000	Black	Reel	1,000 ft	612825191520
7929A 0102000	Black	Reel	2,000 ft	612825191537
7929A 0105000	Black	Reel	5,000 ft	612825191544
7929A 0061000	Blue	Reel	1,000 ft	612825191506
7929A 0081000	Gray	Reel	1,000 ft	612825191513
7929A 0021000	Red	Reel	1,000 ft	612825191490
7929A 1NH1000	Teal	Reel	1,000 ft	612825191551

#### Product Notes

Notes:	Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. *Special RJ45 plug required. See WWW. BELDEN.COM - Tools - Connector Cross Reference.
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#### History

Update and Revision:	Revision Number: 0.365 Revision Date: 09-30-2020
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