



Product: [7929A](#)

DataTuff® 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.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	Nominal Diameter	Nominal Wall Thickness
Polyolefin	0.044 in	0.01 in

Bonded-Pair:	Yes
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Color Chart

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

Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Alum / Poly	Beldfoil®	100 %	TC - Tinned Copper	24	7x32

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.265 in

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
9.38 Ohm/1000ft	3 %

Capacitance

Max. Capacitance Unbalance	Nom.Mutual Capacitance
330 pF/ft	15 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nominal 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 RMS

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	30 lbs/1000ft
Max Recommended Pulling Tension:	20 lbs
Min Bend Radius/Minor Axis:	0.5 in

Standards

NEC/(UL) Specification:	CM, UL 444
CEC/C(UL) Specification:	CMG
CPR Euroclass:	Eca
Data Category:	Category 5e

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-04
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1666 Vertical Riser
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2

UL voltage rating:	300 V RMS
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Plenum/Non-Plenum

Plenum (Y/N):	No
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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

Footnote:	C - CRATE REEL PUT-UP.
Patent:	https://www.belden.com/resources/patents

Product Notes

Notes:	US Patent #'s 5, 606, 151; 5, 734, 126. 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: 0.317 Revision Date: 04-28-2020
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