



Product: [7939A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Str BC, PO Ins, OS, PVC Jkt, CMX-Outdoor CMR

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Product Description
Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (7x32) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, CMX-Outdoor CMR

Technical Specifications

Product Overview

Suitable Applications:	outdoor, 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/patents .

Construction Details

Conductor

Element	Size	Stranding	Material	Number of Pairs	Number of Element
Pair(s)	24 AWG	7x32	BC - Bare Copper	4	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

Outer Shield

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

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.295 in (7.49 mm)

Overall Cable Diameter (Nominal):

0.295 in (7.49 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR		Max. Capacitance Unbalance	
93.8 Ohm/km (28.6 Ohm/1000ft)		330 pF/ft	

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.	Typical Delay Skew
510 ns/100m	45 ns/100m	69%	12 ns/ft

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]	Min. SRL (Structural Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.5 dB/100m	65.3	62.3	62.8	59.8	63.8	60.8	20	23	100 ± 15	100 ± 15
4	4.9 dB/100m	56.3	53.3	51.4	48.4	51.7	48.7	23	23	100 ± 15	100 ± 15
8	6.9 dB/100m	51.8	48.8	44.9	41.9	45.7	42.7	24.5	24.5	100 ± 15	100 ± 15
10	7.8 dB/100m	50.3	47.3	42.5	39.5	43.8	40.8	25	25	100 ± 15	100 ± 15

16	9.9 dB/100m	47.3	44.3	37.4	34.4	39.7	36.7	25	25	100 ± 15	100 ± 15
20	11.1 dB/100m	45.8	42.8	34.7	31.7	37.7	34.7	25	25	100 ± 15	100 ± 15
25	12.5 dB/100m	44.3	41.3	21.8	28.8	35.8	32.8	24.3	24.3	100 ± 15	100 ± 15
31.25	14.1 dB/100m	42.9	39.9	28.8	25.8	33.9	30.9	23.6	23.6	100 ± 15	100 ± 15
62.5	20.4 dB/100m	38.4	35.4	18	15	27.8	24.8	21.5	21.5	100 ± 15	100 ± 15
100	26.4 dB/100m	35.3	32.3	8.9	5.9	23.8	20.8	20.1	20.1	100 ± 15	

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation
60°C	-40°C To +75°C	-25°C To +75°C

Bend Radius

Stationary Min.
0.6 in (15 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	36 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Plenum, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1666 Riser, FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMR;CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor;CMG
ICEA Compliance:	S-90-661
NEMA Compliance:	NEMA WC-63.1
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-6
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
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)

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: 0.541 Revision Date: 01-20-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
7939A 0101000	Black	Reel	1,000 ft	612825191773
7939A 0102000	Black	Reel	2,000 ft	612825191780
7939A 0061000	Blue	Reel	1,000 ft	612825191759
7939A 0081000	Gray	Reel	1,000 ft	612825191766
7939A 0021000	Red	Reel	1,000 ft	612825191742
7939A 1NH1000	Teal	Reel	1,000 ft	612825191797

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