

Product: 7939A

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

Request Sample

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	No. of Pairs	No. of Elements
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:	Riser, 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.

History

Update and Revision:	Revision Number: 0.561 Revision Date: 04-29-2024

Part Numbers

Variants

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

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