Belden



Product: 7933A

DataTuff® Cat 5e, 2 Bonded-Pr #24 Sol BC, PO Ins, OS, PVC Jkt, CMR SUN RES OIL RES

Request Sample

Product Description

Industrial Ethernet Cat 5e, 2 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, CMR SUN RES OIL RES

Technical Specifications

Product Overview

Suitable Applications:	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
Pair(s)	24 AWG	Solid	BC - Bare Copper	2

Insulation

Material	Color Code
PO - Polyolefin	White/Orange Stripe & Orange, White/Green Stripe & Green

Bonded-Pair:	Yes

Outer Shield

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

Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.235 in (5.97 mm)	No

Overall Cable Diameter (Nominal):	0.235 in (5.97 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	90 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
552 ns/100m	45 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]	Min. SRL (Structural Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.1 dB/100m	65.3	62.3	63.2	60	63.8	60.8	23	23	100 ± 20.2	105 ± 10
4	4.0 dB/100m	56.3	53.3	56.3	49	51.7	48.7	23	23	100 ± 14.2	100 ± 10
8	5.6 dB/100m	51.8	48.8	46.2	43	45.7	42.7	23	24.5	100 ± 11.3	100 ± 10
10	6.3 dB/100m	50.3	47.3	43.9	41	43.8	40.8	25	25	100 ± 11.3	100 ± 10
16	8.0 dB/100m	47.3	44.3	35.2	36	39.7	36.7	25	25	100 ± 11.3	100 ± 10

20	9.0 dB/100m	45.8	42.8	36.5	33.5	37.7	34.7	25	25	100 ± 11.3	100 ± 10
25	10.1 dB/100m	44.3	41.3	34.2	30.9	35.8	32.8	25.5	24.3	100 ± 11.3	100 ± 10
31.25	11.4 dB/100m	42.9	39.9	31.3	28	33.9	30.9	23.6	23.6	100 ± 13.2	100 ± 10
62.5	16.5 dB/100m	38.4	35.4	21.6	19	27.8	24.8	21.5	21.5	100 ± 16.9	100 ± 10
100	21.3 dB/100m	35.3	32.3	17.1	11	23.8	20.8	20.1	20.1	100 ± 20.0	100 ± 10
155	28.1 dB/100m	32.5	29.5	4.4	1.4	19.9	16.9	15.8		100 ± 25.0	100 ± 15
200	32 dB/100m	30.8	27.8	4	1	17.7	14.7	15		100 ± 25.0	100 ± 15

Voltage

UL Voltage Rating
300 V (CMR)

Mechanical Characteristics

Temperature

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

Bend Radius

Stationary Min.
1.5 in (38 mm)

Max. Pull Tension:	55 lbs (25 kg)
Bulk Cable Weight:	31 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 (FT4 Loading), FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMR
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 61156-5
European Directive Compliance:	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 Temperature subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Limits below 4 MHz are for information only.

History

Update and Revision:	Revision Number: 0.694 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7933A 0101000	Black	Reel	1,000 ft	612825191643	C
7933A 1NH1000	Teal	Reel	1,000 ft	612825191667	C

Footnote:	C - CRATE REEL PUT-UP.

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