

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	No. of Elements
Pair(s)	24 AWG	Solid	BC - Bare Copper	2	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.
2.560 in (65.02 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: 0.568 Revision Date: 04-29-2024

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

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.