



Product: [127933A](#)

DataTuff® 5e, 2 Bonded-Pr #24 Sol BC, PO Ins, OS, PVC Jkt, AIA Armor, PVC Jkt

[Request Sample](#)

Product Description

Industrial Ethernet Cat 5e, 2 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force,
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents .

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Pairs
Pair(s)	24	Solid	BC - Bare Copper	2

Insulation

Material	
PO - Polyolefin	
Bonded-Pair:	Yes

Color Chart

Color
White/Orange Stripe & Orange
White/Green Stripe & Green

Inner Jacket

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.235 in	Yes

Outer Shield

Type	Material	Material Trade Name	Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%

Outer Jacket

Material	Nominal Diameter	Separator Material
PVC - Polyvinyl Chloride	0.565 in	Polyester Tape

Construction and Dimensions

Armor

Diameter over Armoring
0.475 in

Electrical Characteristics

Conductor DCR

-

Max. Conductor DCR
93.8 Ohm/km

Capacitance

Max. Capacitance Unbalance
330 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
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)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.1 dB/100m	65.3 dB	62.3 dB	63.2 dB	60 dB	63.8 dB	60.8 dB	23 dB	23 dB	100 ± 20.2 Ohm	105 ± 10 Ohm
4 MHz	4.0 dB/100m	56.3 dB	53.3 dB	56.3 dB	49 dB	51.7 dB	48.7 dB	23 dB	23 dB	100 ± 14.2 Ohm	100 ± 10 Ohm
8 MHz	5.6 dB/100m	51.8 dB	48.8 dB	46.2 dB	43 dB	45.7 dB	42.7 dB	23 dB	24.5 dB	100 ± 11.3 Ohm	100 ± 10 Ohm
10 MHz	6.3 dB/100m	50.3 dB	47.3 dB	43.9 dB	41 dB	43.8 dB	40.8 dB	25 dB	25 dB	100 ± 11.3 Ohm	100 ± 10 Ohm
16 MHz	8.0 dB/100m	47.3 dB	44.3 dB	35.2 dB	36 dB	39.7 dB	36.7 dB	25 dB	25 dB	100 ± 11.3 Ohm	100 ± 10 Ohm
20 MHz	9.0 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 ± 11.3 Ohm	100 ± 10 Ohm
25 MHz	10.1 dB/100m	44.3 dB	41.3 dB	34.2 dB	30.9 dB	35.8 dB	32.8 dB	25.5 dB	24.3 dB	100 ± 11.3 Ohm	100 ± 10 Ohm
31.25 MHz	11.4 dB/100m	42.9 dB	39.9 dB	31.3 dB	28 dB	33.9 dB	30.9 dB	23.6 dB	23.6 dB	100 ± 13.2 Ohm	100 ± 10 Ohm
62.5 MHz	16.5 dB/100m	38.4 dB	35.4 dB	21.6 dB	19 dB	27.8 dB	24.8 dB	21.5 dB	21.5 dB	100 ± 16.9 Ohm	100 ± 10 Ohm
100 MHz	21.3 dB/100m	35.3 dB	32.3 dB	17.1 dB	11 dB	23.8 dB	20.8 dB	20.1 dB	20.1 dB	100 ± 20.0 Ohm	100 ± 10 Ohm

Current

Max. Recommended Current [A]
15 pF/ft

Voltage

UL Description	UL Voltage Rating
CM	300 V

Mechanical Characteristics

Bulk Cable Weight:	134 lbs/1000ft
Max. Pull Tension:	100 lbs

Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CM
CEC/C(UL) Compliance:	CMG, HL
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
CPR Euroclass:	Eca
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2020-01-16
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No

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

Flammability, LSOH, Toxicity Testing

CSA/C(UL) Flammability:	FT4
UL Flammability:	UL 1685 (UL Loading)

Product Notes

Notes:	Operating temperatures are subject to length de-rating
--------	--

History

Update and Revision:	Revision Number: 0.36 Revision Date: 04-29-2024
----------------------	---

© 2025 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.