



REPRESENTATIVE IMAGE

Product: [7938A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Str Alloy, PO Ins, OS+TC Brd, TPE Jkt, TPE Jkt, High Flex AWM 20606

[Request Sample](#)

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair, 24AWG (Stranded) Alloy, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, TPE Inner Jacket, TPE Outer Jacket, High Flex 10M cycles at 10xOD AWM 20606

Technical Specifications

Product Overview

Suitable Applications:	robotic, 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/resources/patents .

Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
24 AWG	7x32	BCA - Bare Copper Alloy	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
--------------	-----

Inner Jacket

Separator	Material	Nom. Diameter	Ripcord
Central Filler	TPE - Thermoplastic Elastomer	0.254 in (6.45 mm)	No

Outer Shield

Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	85%

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Polyester Tape	TPE - Thermoplastic Elastomer	0.342 in (8.69 mm)	Yes

Overall Cable Diameter (Nominal):	0.342 in (8.69 mm)
-----------------------------------	--------------------

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km	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)	Max./Min. Fitted Impedance
1	2.5 dB/100m	65.3	62.3	62.8	59.8	63.8	60.8	20	23	100 ± 15 Ohm	100 ± 15 Ohm
4	4.9 dB/100m	56.3	53.3	51.4	48.4	51.7	48.7	23	23	100 ± 15 Ohm	100 ± 15 Ohm
8	6.9 dB/100m	51.8	48.8	44.9	41.9	45.7	42.7	24.5	24.5	100 ± 15 Ohm	100 ± 15 Ohm
10	7.8 dB/100m	50.3	47.3	42.5	39.5	43.8	40.8	25	25	100 ± 15 Ohm	100 ± 15 Ohm
16	9.9 dB/100m	47.3	44.3	37.4	34.4	39.7	36.7	25	25	100 ± 15 Ohm	100 ± 15 Ohm
20	11.1 dB/100m	45.8	42.8	34.7	31.7	37.7	34.7	25	25	100 ± 15 Ohm	100 ± 15 Ohm
25	12.5 dB/100m	44.3	41.3	21.8	28.8	35.8	32.8	24.3	24.3	100 ± 15 Ohm	100 ± 15 Ohm
31.25	14.1 dB/100m	42.9	39.9	28.8	25.8	33.9	30.9	23.6	23.6	100 ± 15 Ohm	100 ± 15 Ohm
62.5	20.4 dB/100m	38.4	35.4	18	15	27.8	24.8	21.5	21.5	100 ± 15 Ohm	100 ± 15 Ohm
100	26.4 dB/100m	35.3	32.3	8.9	5.9	23.8	20.8	20.1	20.1	100 ± 15 Ohm	100 ± 15 Ohm

Voltage

UL Voltage Rating
300 V

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
60°C	-40°C To +80°C	-25°C To +75°C	-40°C To +80°C

Bend Radius

Stationary Min.
3.5 in (89 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	60 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1581 (Vertical Tray), (VW-1), FT1
CPR Compliance:	CPR Euroclass: Eca
Data Category:	Category 5e
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
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. AWM 20626 80C 300V. *Special RJ45 plugs required. See WWW.BELDEN.COM - Tools - Connector Cross Reference.
--------	--

History

Update and Revision:	Revision Number: 0.416 Revision Date: 12-15-2021
----------------------	--

Variants

Item #	Color	Putup Type	Length	UPC
7938A B59500	Black, Matte	Reel	500 ft	612825191735
7938A B591000	Matte Black			612825406204

© 2022 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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Multi-Conductor Cables](#) category:

Click to view products by [Belden](#) manufacturer:

Other Similar products are found below :

[8916-GRY-100](#) [8917-BLK-100](#) [8918-GRN/YEL-100](#) [8920-BRN-1000](#) [8920-RED-1000](#) [89907-LT-DEC/GRY-500](#) [CR3909-000](#) [CR3927-000](#) [01342.35T.01](#) [01364.35T.01](#) [003201-000](#) [CS2885-000](#) [CS8782-000](#) [CS9912-000](#) [6200UE-NAT-U1000](#) [CTC-0062-20-9/5-9](#) [CTC-0062-22-9/5-9](#) [6304FE-877-U500](#) [6309UE-877-1000](#) [6320UE-NAT-U1000](#) [644833-000](#) [6502FE 8771000](#) [6504UE-877-U1000](#) [CW9530-000](#) [CX6543-000](#) [CXA-0066-20-4-9CS2973](#) [CXA-0078-16-1-9CS2405](#) [CXA-0078-22-4-9CS2405](#) [CXA-0078-24-4-9CS2405](#) [CXA-0140-16-6/9-9CS2405](#) [CY0660-000](#) [706/2R-BLACK-EACH](#) [720451-000](#) [730859-000](#) [MCC-USB-4-250](#) [752687-000](#) [768146-000](#) [773159-000](#) [7934A-BLK-1000](#) [8125-CHR-100](#) [8164-CHR-1000](#) [820457-000](#) [8205-CHR-1000](#) [8240-BLK-U1000](#) [82723-NAT-1000](#) [82907-NAT-500](#) [83003-YEL-500](#) [83005-WHT-500](#) [83006-DK-GRN-100](#) [83008-WHT-1000](#)