



Product: [7928A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, FEP Ins, FEP Jkt, CMP CMP-LC

[Request Sample](#)

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, FEP Insulation, FEP Outer Jacket, CMP CMP-LC

Technical Specifications

Product Overview

Suitable Applications:	extreme temp, exposure to oil and gasoline, 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	4	4

Insulation

Material	Color Code
FEP - Fluorinated Ethylene Propylene	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
--------------	-----

Outer Jacket

Material	Nom. Diameter
FEP - Fluorinated Ethylene Propylene	0.183 in (4.65 mm)

Overall Cable Diameter (Nominal):	0.183 in (4.65 mm)
-----------------------------------	--------------------

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	330 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
510 ns/100m	25 ns/100m	72%

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]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	65.3	65.3	63.3	63.3	63.8	60.8	20	100 ± 12	95-110
4	4.0 dB/100m	56.3	56.3	52.3	52.3	51.7	48.7	23.6	100 ± 12	95-110
8	5.7 dB/100m	51.8	51.8	46.1	46.1	45.7	42.7	25.4	100 ± 12	95-107
10	6.4 dB/100m	50.3	50.3	43.9	43.9	43.8	40.8	26	100 ± 12	95-107
16	8.1 dB/100m	47.3	47.3	39.1	39.1	39.7	36.7	26	100 ± 12	95-107
20	9.2 dB/100m	45.8	45.8	35.2	35.2	37.7	34.7	26	100 ± 12	95-107
25	10.3 dB/100m	44.3	44.3	34.1	34.1	35.8	32.8	25.5	100 ± 15	95-107

31.25	11.6 dB/100m	42.9	42.9	31.3	31.3	33.9	30.9	25	100 ± 15	95-107
62.5	16.8 dB/100m	38.4	38.4	21.6	21.6	27.8	24.8	23.5	100 ± 15	95-107
100	21.7 dB/100m	35.3	35.3	17.1	17.1	23.8	20.8	22.5	100 ± 15	
155	27.7 dB/100m	32.5	32.5	4.7	4.7	19.9	16.9	19	100 ± 18	
200	32 dB/100m	30.8	30.8	3	3	17.7	14.7	19	100 ± 20	
250	36.4 dB/100m	29.3	29.3	0	0	15.8	12.8	18	100 ± 20	
300	40.5 dB/100m	28.2	28.2	0	0	14.2	11.2	18	100 ± 20	
310	41.3 dB/100m	27.9	27.9			13.9	10.9	18	100 ± 20	
350	44.3 dB/100m	27.2	27.2			12.9	9.9	17	100 ± 22	

Voltage

UL Voltage Rating
300 V (CMP)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
150°C	-70°C To +150°C	-55°C To +150°C	-70°C To +150°C

Bend Radius

Stationary Min.
0.25 in (6.4 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	22 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Plenum, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	NFPA 262 Plenum Flame Test (UL910),UL723 (NFPA 255), FT6, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMP
CEC / C(UL) Compliance:	CMP
ICEA Compliance:	S-90-661
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3
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:	EtherNet IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -70C Cold Bend per UL 1581.
--------	--

History

Update and Revision:	Revision Number: 0.578 Revision Date: 04-29-2024
----------------------	--

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
7928A 0101000	Black	Reel	1,000 ft	612825191476
7928A 0105000	Black	Reel	5,000 ft	612825191483

© 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.