

Product: 7921A

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, OS+TC Brd, PVC Jkt, CMR CMX-Outdoor

Request Sample

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(70%) Shield, PVC Outer Jacket, CMR CMX-Outdoor

Technical Specifications

Product Overview

Suitable Applications:	noisy environment, outdoor, 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 Elements
Pair(s)	24 AWG	Solid	BC - Bare Copper	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

Outer Shield

Shield Type	Material	Coverage	Drainwire Type	Notes
Tape	Bi-Laminate (Alum+Poly)	100%	26 AWG (Solid) TC	Two drain wires applied helically for added flexibility
Braid	Tinned Copper (TC)	70%		

Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.33 in (8.4 mm)	No

Overall Cable Diameter (Nominal):	0.33 in (8.4 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	150 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
538 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	2.0 dB/100m	65.3	62.3	63	60	63.8	60.8	20	20	100 ± 15	95-110
4	4.1 dB/100m	56.3	53.3	51	49	51.7	48.7	23.6	23.6	100 ± 15	95-110

8	5.8 dB/100m	51.8	48.8	46	43	45.7	42.7	25.4	25.4	100 ± 15	95-107
10	6.5 dB/100m	50.3	47.3	43	41	43.8	40.8	26	26	100 ± 15	95-107
16	8.2 dB/100m	47.3	44.3	39	36	39.7	36.7	26	26	100 ± 15	95-107
20	9.3 dB/100m	45.8	42.8	36.5	33.5	37.7	34.7	26	26	100 ± 15	95-107
25	10.4 dB/100m	44.3	41.3	33.9	30.9	35.8	32.8	25.5	25.5	100 ± 15	95-107
31.25	11.7 dB/100m	42.9	39.9	31	28	33.9	30.9	25	25	100 ± 15	95-107
62.5	17.0 dB/100m	38.4	35.4	22	19	27.8	24.8	23.5	23.5	100 ± 15	95-107
100	22.0 dB/100m	35.3	32.3	14	11	23.8	20.8	22.5	22.5	100 ± 15	

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX-Outdoor)

Mechanical Characteristics

Temperature

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

Bend Radius

Stationary Min.
1.32 in (33.5 mm)

Max. Pull Tension:	75 lbs (34 kg)
Bulk Cable Weight:	50 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1666 Riser, FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CMR, CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
Third Party Performance Verification:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, 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 -40C Cold Bend per UL 1581.

History

Update and Revision:	Revision Number: 0.533 Revision Date: 04-29-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7921A 0101000	Black	Reel	1,000 ft	612825191261	C
7921A 0102000	Black	Reel	2,000 ft	612825191278	C
7921A 0061000	Blue	Reel	1,000 ft	612825191254	C
7921A 0021000	Red	Reel	1,000 ft	612825191247	C
7921A 1NH1000	Teal	Reel	1,000 ft	612825191285	C

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