



**Product:** [7921A](#)

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

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### 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 <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .

#### Construction Details

##### Conductor

Element	Size	Stranding	Material	Number of Pairs	Number of Element
Pair(s)	24 AWG	Solid	BC - Bare Copper	4	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
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##### 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)
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#### 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, 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.
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#### History

Update and Revision:	Revision Number: 0.496 Revision Date: 06-30-2022
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#### Part Numbers

##### Variants

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

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