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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/resources/patents.

Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
24 AWG	Solid	BC - Bare Copper	4

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	0.046 in (1.2 mm)	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
Tape	Bi-Laminate (Alum+Poly)	100%
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	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)	Max./Min. Fitted Impedance
1	2.0 dB/100m	65.3	62.3	63	60	63.8	60.8	20	20	100 ± 15 Ohm	95-110 Ohm
4	4.1 dB/100m	56.3	53.3	51	49	51.7	48.7	23.6	23.6	100 ± 15 Ohm	95-110 Ohm

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

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
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
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: 0.401 Revision Date: 12-15-2021

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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