



Product: [7903A](#)

DataTuff® Cat 5e, 4 Pr #22 Sol BC, PO Ins, OS, PVC Jkt, PLTC CMR, FT4

Product Description

Industrial Ethernet Cat 5e, 4 Pair 22AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, PLTC CMR, FT4

Technical Specifications

Product Overview

Suitable Applications:	power-limited tray, 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)	22 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
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.335 in (8.51 mm)	No

Overall Cable Diameter (Nominal):	0.335 in (8.51 mm)
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Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance
56.5 Ohm/km (17.2 Ohm/1000ft)	17 pF/ft (56 pF/m)	330 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
510 ns/100m	25 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]	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	100 ± 15	100 ± 15
4	4.1 dB/100m	56.3	53.3	51	49	51.7	48.7	23	100 ± 15	100 ± 15
8	5.8 dB/100m	51.8	48.8	46	43	45.7	42.7	24.5	100 ± 15	100 ± 15
10	6.5 dB/100m	50.3	47.3	43	41	43.8	40.8	25	100 ± 15	100 ± 15

16	8.2 dB/100m	47.3	44.3	39	36	39.7	36.7	25	100 ± 15	100 ± 15
20	9.3 dB/100m	45.8	42.8	36.5	33.5	37.7	34.7	25	100 ± 15	100 ± 15
25	10.4 dB/100m	44.3	41.3	33.9	30.9	35.8	32.8	24.3	100 ± 15	100 ± 15
31.25	11.7 dB/100m	42.9	39.9	31	28	33.9	30.9	23.6	100 ± 15	100 ± 15
62.5	17.0 dB/100m	38.4	35.4	22	19	27.8	24.8	21.5	100 ± 15	100 ± 15
100	22.0 dB/100m	35.3	32.3	14	11	23.8	20.8	20.1	100 ± 15	
155	28.1 dB/100m	32.5	29.5	4.4	1.4	19.9	16.9	18.8	100 ± 25	
200	32 dB/100m	30.8	27.8	4	1	17.7	14.7	18.0	100 ± 25	
250	36.9 dB/100m	29.3	26.3			15.8	12.8	18	100 ± 25	
300	41.0 dB/100m	28.2	25.1			14.2	11.2	17.3	100 ± 25	
310	41.8 dB/100m	27.9	24.9			13.9	10.9	16.8	100 ± 25	
350	44.9 dB/100m	27.2	24.1			12.9	9.9	16.3	100 ± 25	

Voltage

UL Voltage Rating
300 V RMS (PLTC, CMR, CMX Outdoor), 600 V (AWM)

Mechanical Characteristics

Temperature

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

Bend Radius

Stationary Min.

3.38 in (85.9 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	43 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1666 Riser
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	CMR, PLTC
AWM Compliance:	AWM 21047
CEC / C(UL) Compliance:	CMR
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
ISO/IEC Compliance:	ISO/IEC 11801 Cat 5e
UK Regulation Compliance:	UKCA Mark

Product Notes

Notes:	Operating temperatures are subject to length de-rating
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History

Update and Revision:	Revision Number: 0.358 Revision Date: 11-06-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
7903A 0103000				612825421924
7903A 0101000	Black	Reel	1,000 ft	612825421917
7903A 0105000	Black	Reel	5,000 ft	612825421931

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