Belden



Product: 7940A

DataTuff® Cat 6, 4 Bonded-Pr #23 Sol BC, PO Ins, PVC Jkt, CMX-Outdoor CMR

Request Sample

Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 23AWG (Solid) Bare Copper, PO Insulation, PVC Outer Jacket, CMX-Outdoor CMR

Technical Specifications

Product Overview

Suitable Applications:	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

Size	Stranding	Material	No. of Pairs
23 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 Jacket

Separator	Material	Nom. Diameter	Ripcord
Dielectric Tape (Patented)	PVC - Polyvinyl Chloride	0.25 in (6.4 mm)	Yes

Overall Cable Diameter (Nominal):	0.25 in (6.4 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km (25 Ohm/1000ft)	330 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
537 ns/100m	45 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)	Max./Min. Fitted Impedance
1	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	21	100 ± 15 Ohm	100 ± 15 Ohm
4	3.8 dB/100m	65.3	63.3	61.5	59.5	55.8	52.7	24	100 ± 15 Ohm	100 ± 15 Ohm
8	5.3 dB/100m	60.8	58.8	55.4	53.4	49.7	46.7	25.5	100 ± 15 Ohm	100 ± 15 Ohm
10	6 dB/100m	59.3	57.3	53.3	51.3	47.8	44.8	26	100 ± 15 Ohm	100 ± 15 Ohm
16	7.6 dB/100m	56.2	54.3	48.7	46.7	43.7	40.7	26	100 ± 15 Ohm	100 ± 15 Ohm
20	8.5 dB/100m	54.8	52.8	46.3	44.3	41.8	38.8	26	100 ± 15 Ohm	100 ± 15 Ohm
25	9.5 dB/100m	53.3	51.3	43.8	41.8	39.8	36.8	25.3	100 ± 15 Ohm	100 ± 15 Ohm
31.25	10.7 dB/100m	51.9	49.9	41.2	39.2	37.9	34.9	24.6	100 ± 15 Ohm	100 ± 15 Ohm
62.5	15.4 dB/100m	47.4	45.4	32	30	31.9	28.9	22.5	100 ± 15 Ohm	100 ± 15 Ohm

100	19.8 dB/100m	44.3	42.3	24.5	22.5	27.8	24.8	21.1	100 ± 15 Ohm	
155	25.2 dB/100m	41.5	39.5	16.3	14.3	23.9	20.9	19.8	100 ± 22 Ohm	100 ± 15 Ohm
200	29.0 dB/100m	39.8	37.8	10.8	8.8	21.8	18.8	19	100 ± 22 Ohm	100 ± 15 Ohm
250	32.8 dB/100m	38.3	36.3	5.5	3.5	19.8	16.8	18.3	100 ± 32 Ohm	100 ± 15 Ohm

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
90°C	-40°C To +75°C	-20°C To +75°C	-40°C To +75°C

Bend Radius

Stationary Min.
2.5 in (64 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	30 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Aerial
Flammability / Reaction to Fire:	UL1666 Riser, 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 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
Third Party Performance Verification:	Category 6
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:	Jacket sequentially marked at 2 ft. intervals.

History

Update and Revision:	Revision Number: 0.543 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7940A 0101000	Black	Reel	1,000 ft	612825191827	C
7940A 0102000	Black	Reel	2,000 ft	612825191834	C
7940A 0061000	Blue	Reel	1,000 ft	612825191803	
7940A 0081000	Gray	Reel	1,000 ft	612825191810	
7940A 1NH1000	Teal	Reel	1,000 ft	612825191841	C

Footnote:	C - CRATE REEL PUT-UP.

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