



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

### Construction Details

#### Conductor

Size	Stranding	Material	Number 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
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#### 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)
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### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km	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
60°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, Non-Halogenated, 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 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
APAC Compliance:	China RoHS II (GB/T 26572-2011)

## Product Notes

Notes:	Jacket sequentially marked at 2 ft. intervals.
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## History

Update and Revision:	Revision Number: 0.402 Revision Date: 12-15-2021
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## Variants

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

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