



Product: [IEA005](#)

DataTuff® 6A, High Flex, 4 Pr #26 Str TC, PO Ins, OS, TPE Jkt, CMR, CMX

[Request Sample](#)

Product Description

Industrial Ethernet Cat 6A, 4 Pair 26AWG (Stranded 7X34) Tinned Copper, PO Insulation, X-Spline, Beldfoil Shield, TPE Outer Jacket, UL CMR, CMX Outdoor, OIL RES II, SUN RES, AWM 600V

Technical Specifications

Product Overview

Suitable Applications:	High Flex, Automation, Robotics, exposure to oil and gasoline, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
------------------------	---

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs
Pair(s)	26 AWG	7x34	TC - Tinned Copper	4

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Pair(s)	PE - Polyethylene	0.068 in (1.7 mm)	Blue & White/Blue, Orange & White/Orange, Green & White/Green, Brown & White/Brown

Outer Shield

Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	75%

Outer Jacket

Material	Nom. Diameter
TPE - Thermoplastic Elastomer	0.29 in (7.4 mm)

Overall Cable Diameter (Nominal):	0.29 in (7.4 mm)
-----------------------------------	------------------

Electrical Characteristics

Electricals

Max. Conductor DCR
44.4 Ohm/1000ft

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
540 ns/100m	45 ns/100m	67%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [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]	Min. TCL [dB]	Min. ELTCTL [dB]	Max. Surface Transfer Impedance [mOhm/m]	Min. Coupling Attenuation [dB]
1	3.1 dB/100m	74.3	72.3	67.8	64.8	20.0	100 ± 15	100 +/- 10	40.0	35.0	50.0	
4	5.7 dB/100m	65.3	63.3	55.8	52.8	23.0	100 ± 15	100 ± 15	40.0	23.0	75.9	
8	8.0 dB/100m	60.8	58.8	49.7	46.7	24.5	100 ± 15	100 ± 15	40.0	16.9	93.5	
10	8.9 dB/100m	59.3	57.3	47.8	44.8	25.0	100 ± 15	100 ± 15	40.0	15.0	100.0	

16	11.2 dB/100m	56.2	54.2	43.7	40.7	25.0	100 ± 15	100 ± 15	38.0	10.9	135.3	
20	12.6 dB/100m	54.8	52.8	41.8	38.8	25.0	100 ± 15	100 ± 15	37.0	9.0	155.8	
25	14.1 dB/100m	53.3	51.3	39.8	36.8	24.2	100 ± 15	100 ± 15	36.0	7.0	179.5	
31.25	15.8 dB/100m	51.9	49.9	7.9	34.9	23.3	100 ± 15	100 ± 10	35.1	5.5		85
62.5	22.5 dB/100m	47.4	45.4	31.9	28.9	20.7	100 ± 15	100 ± 10	32			85
100	28.7 dB/100m	44.3	42.3	27.8	24.8	19.0	100 ± 15	100 ± 10	30.0			85
200	41.4 dB/100m	39.8	37.8	21.8	18.8	19.0	100 ± 15	100 ± 10	27.0			78.9
250	46.6 dB/100m	38.3	36.3	19.8	16.8	15.6	100 ± 32	100 ± 10	26.0			77
300	51.4 dB/100m	37.1	35.1	18.3	15.3	14.9	100 ± 32	100 ± 10	25.2			75.5
400	60.1 dB/100m	35.3	33.3	15.8	12.8	13.8	100 ± 32	100 ± 10	24.0			72.9
500	67.9 dB/100m	33.8	31.8	13.8	10.8	13.0	100 ± 32	100 ± 10	23.0			71.0

Voltage

UL Voltage Rating
600 V (UL 2463)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
75°C	-40°C To +75°C	-20°C To +80°C	-40°C To +80°C

Bend Radius

Stationary Min.	Installation Min.
2.9 in (74 mm)	2.9 in (74 mm)

Max. Pull Tension:	28 lbs (13 kg)
Bulk Cable Weight:	40 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1666 - Riser, VW-1
NEC / UL Compliance:	Article 800, CMX-Outdoor, CMR
AWM Compliance:	AWM 2463
CEC / C(UL) Compliance:	CMR-CMX OUTDOOR
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.151 Revision Date: 12-13-2023
----------------------	--

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.