



Product: [IEA005](#)

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

Product Description

DataTuff® 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.
------------------------	---

Physical Characteristics (Overall)

Conductor			
AWG	Stranding	Material	No. of Pairs
26	7x34	TC - Tinned Copper	4

Insulation	
Material	
PE - Polyethylene	

Color Chart	
Color	
White/Blue & Blue	
White/Orange & Orange	
White/Green & Green	
White/Brown & Brown	

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

Outer Jacket		
Material	Nominal Diameter	Nominal Wall Thickness
TPE - Thermoplastic Elastomer	.290 in.	.033 in. mm

Electrical Characteristics

Conductor DCR	
Max. Conductor DCR	Max. DCR Unbalance
21.2 Ohms/100m @ 20C	0.04 %

Capacitance	
Nom.Mutual Capacitance	
17 pF/ft	

Delay		
Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]

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)	Max./Min. Fitted Impedance	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	3.1 dB/100m	74.3 dB	72.3 dB	67.8 dB	64.8 dB	20.0 dB	100 +/- 15 Ohms	100 +/- 10 Ohms	40.0 dB	35.0 dB
4 MHz	5.7 dB/100m	65.3 dB	63.3 dB	55.8 dB	52.8 dB	23.0 dB	100 +/- 15 Ohms	100 +/- 15 Ohms	40.0 dB	23.0 dB
8 MHz	8.0 dB/100m	60.8 dB	58.8 dB	49.7 dB	46.7 dB	24.5 dB	100 +/- 15 Ohms	100 +/- 15 Ohms	40.0 dB	16.9 dB
10 MHz	8.9 dB/100m	59.3 dB	57.3 dB	47.8 dB	44.8 dB	25.0 dB	100 +/- 15 Ohms	100 +/- 15 Ohms	40.0 dB	15.0 dB
16 MHz	11.2 dB/100m	56.2 dB	54.2 dB	43.7 dB	40.7 dB	25.0 dB	100 +/- 15 Ohms	100 +/- 15 Ohms	38.0 dB	10.9 dB
20 MHz	12.6 dB/100m	54.8 dB	52.8 dB	41.8 dB	38.8 dB	25.0 dB	100 +/- 15 Ohms	100 +/- 15 Ohms	37.0 dB	9.0 dB
25 MHz	14.1 dB/100m	53.3 dB	51.3 dB	39.8 dB	36.8 dB	24.2 dB	100 +/- 15 Ohms	100 +/- 15 Ohms	36.0 dB	7.0 dB
31.25 MHz	15.8 dB/100m	51.9 dB	49.9 dB	7.9 dB	34.9 dB	23.3 dB	100 +/- 15 Ohm	100+/- 10 Ohm	35.1 dB	5.5 dB
62.5 MHz	22.5 dB/100m	47.4 dB	45.4 dB	31.9 dB	28.9 dB	20.7 dB	100 +/- 15 Ohm	100 +/- 10 Ohm	32 dB	
100 MHz	28.7 dB/100m	44.3 dB	42.3 dB	27.8 dB	24.8 dB	19.0 dB	100 +/- 15 Ohm	100 +/- 10 Ohm	30.0 dB	
200 MHz	41.4 dB/100m	39.8 dB	37.8 dB	21.8 dB	18.8 dB	19.0 dB	100 +/- 22 Ohms	100 +/- 10 Ohms	27.0 dB	
250 MHz	46.6 dB/100m	38.3 dB	36.3 dB	19.8 dB	16.8 dB	15.6 dB	100 +/- 32 Ohms	100 +/- 10 Ohms	26.0 dB	
300 MHz	51.4 dB/100m	37.1 dB	35.1 dB	18.3 dB	15.3 dB	14.9 dB	100 +/- 32 Ohms	100 +/- 10 Ohms	25.2 dB	
400 MHz	60.1 dB/100m	35.3 dB	33.3 dB	15.8 dB	12.8 dB	13.8 dB	100 +/- 32 Ohm	100 +/- 10 Ohm	24.0 dB	
500 MHz	67.9 dB/100m	33.8 dB	31.8 dB	13.8 dB	10.8 dB	13.0 dB	100 +/- 32 Ohm	100 +/- 10 Ohm	23.0 dB	

Voltage

UL Description	UL Voltage Rating
UL 2463	600 V

Temperature Range

Installation Temperature Range:	-20°C To +80°C
UL Temp Rating:	80°C
Storage Temperature Range:	-40°C To +80°C
Operating Temperature Range:	-40°C To +80°C

Mechanical Characteristics

Oil Resistance:	Oil Res II
UV Resistance:	Yes
Bulk Cable Weight:	40lbs/1000 ft
Max. Pull Tension:	21.7 lbs
Min. Bend Radius During Installation:	1.16 in

Standards

UL AWM Style Compliance:	AWM 2463
Data Category:	Category 6A

Applicable Environmental and Other Programs

EU Directive 2011/65/EU (RoHS 2):	Yes
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL 1666 - Riser
------------------	-----------------

History

Update and Revision:	Revision Number: 0.28 Revision Date: 07-19-2023
----------------------	---

© 2023 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.