

Part Number: 72001E

DataTuff® Industrial Ethernet Cat 5e Permanent Installation Cable



Product Description

DataTuff Industrial ETHERNET Cat 5e 2 Pair, 24 AWG, Overall Foil + 80% Braid, PVC Outer Jacket, UL AWG 2464

Technical Specifications

Product Overview

Environmental Space:	Indoor - Euroclass Eca
----------------------	------------------------

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	2

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	24 AWG

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PP - Polypropylene	1.1 mm	0.05 mm

Bonded-Pair:	No
--------------	----

Color Chart

Number	Color
Pair 1	White/Blue & Blue
Pair 2	White/Orange & Orange

Outer Shield Material

Type	Material	Min. Coverage [%]
Tape	Aluminum/Polyester	
Braid	TC - Tinned Copper	80 %

Outer Shield Table Note:	Aluminum outside
--------------------------	------------------

Outer Jacket Material

Material	Color	Nominal Diameter	Diameter +/- Tolerance	Min. Wall Thickness	Nominal Wall Thickness
PVC - Polyvinyl Chloride	Black	6 mm	0.3 mm	0.8 mm	0.8 mm

Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %

Cabling

Description	Filler
2 pairs and 2 fillers twisted to cable core covered with a polyester foil	Polypropylene (2x)

Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	12.5 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. Conductor Loop	Max. DCR Unbalanced Within Pair [%]
93.8 Ohm/km	19 Ohm/1000ft	2 Ohm

Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
1.6 pF/m	56 pF/m

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance	Nominal Input Impedance
100 Ohm	5 Ohm	100 +/- 15 Ohm

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
40 ns/100m	60 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. RL (Return Loss) [dB]
0.772 MHz		67 dB		19.4 dB
1 MHz	3.2 dB/100m	65.3 dB	63.8 dB	20 dB
4 MHz	6 dB/100m	56.3 dB	51.8 dB	23 dB
10 MHz	9.5 dB/100m	50.3 dB	43.8 dB	25 dB
16 MHz	12.1 dB/100m	47.2 dB	39.7 dB	25 dB
20 MHz	13.6 dB/100m	45.8 dB	37.8 dB	25 dB
25 MHz	15.3 dB/100m	44.3 dB	35.8 dB	24.3 dB
31.25 MHz	17.1 dB/100m	42.9 dB	33.9 dB	23.6 dB
62.5 MHz	24.8 dB/100m	38.3 dB	27.9 dB	21.5 dB
100 MHz	32 dB/100m	35.3 dB	23.8 dB	20.1 dB

Current

Element	Max. Recommended Current [A]
Conductor	1.4 A

Voltage

Voltage Rating [V]
450 V DC and 300 V AC

Temperature Range

Installation Temp Range:	-5°C To +50°C
Operating Temp Range:	-40°C To +80°C

Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
Max Recommended Pulling Tension:	80 N
Min Bend Radius (W/o Pulling Strength):	60 mm
Min Setting Radius:	30 mm

Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011 and ISO/IEC 24702
CPR Euroclass:	Eca
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 5e
ANSI Compliance:	ANSI/TIA/EIA 568-C.2 (2009)

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2015-12-18
---------------------------------------	------------

Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2
-----------------------	---------------

Part Number

Variants

Item #	Color
72001E.013000	Black
72001E.01305	Black
72001E.01500	Black
72001E.01B100	Black

Patent:	https://www.belden.com/resources/patents
---------	---

History

Revision Number:	3
------------------	---

© 2019 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.