

**Part Number:** 74005E

DataTuff® Industrial Ethernet Cat 7 Moderate Flexing Cable



### Product Description

DataTuff Industrial Ethernet, Cat 7 4 Pair, 10 Gb/s, AWG 26(7), Foil + 65% Braid, PVC, UL AWM 20276

### Technical Specifications

#### Physical Characteristics (Overall)

##### Conductor

AWG	Stranding	Material	No. of Pairs
26	Stranded	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

##### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
FPE - Foamed Polyethylene	1.05 mm	0.05 mm

Bonded-Pair:	No
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##### Color Chart

Number	Color
Pair 1	White & Blue
Pair 2	White & Orange
Pair 3	White & Green
Pair 4	White & Brown

##### Inner Shield Material

Type	Layer	Material
Foil	Aluminium / Polyester	Aluminium / Polyester

##### Outer Shield Material

Type	Material
Braid	TC - Tinned Copper

##### Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
PVC - Polyvinyl Chloride	6.8 mm	0.2 mm	0.5 mm

#### Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	12.5 MPa

#### Electrical Characteristics

##### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalanced Within Pair [%]
145 Ohm/km	2 %

#### Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

#### Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
100 Ohm	5 Ohm

#### Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
40 ns/100m	70 %

#### High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
1 MHz	2.7 dB/100m
4 MHz	5.5 dB/100m
10 MHz	8.5 dB/100m
16 MHz	10.8 dB/100m
20 MHz	12.1 dB/100m
31.25 MHz	15.2 dB/100m
62.5 MHz	27.8 dB/100m
100 MHz	27.8 dB/100m
200 MHz	40.1 dB/100m
300 MHz	50 dB/100m
600 MHz	73.3 dB/100m

#### Current

Max. Recommended Current [A]
1 A

#### Temperature Range

Installation Temp Range:	-15°C To + 60°C
Storage Temp Range:	-40°C To +80°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):	65 mm
Min Setting Radius:	30 mm

#### Standards

UL AWM Style:	AWM 20121
ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
CPR Euroclass:	Eca
CENELEC Compliance:	EN50173-1
Data Category:	Category 7
ANSI Compliance:	ANSI/TIA 568.2-D (2018)

#### Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
EU RoHS Compliance Date (yyyy-mm-dd):	2014-01-14

#### Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2
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#### Part Number

#### Variants

Item #	Color	Length
74005E.01500	Black	500 m

Patent:	<a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a>
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## History

Update and Revision:	Revision Number: 0.110 Revision Date: 09-02-2019
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