

**Part Number: 74004E**

**DataTuff® Industrial Ethernet Cat 7 Permanent Installation Cable**



### Product Description

DataTuff Industrial ETHERNET, Cat 7 4 Pair, 10 Gb/s, AWG 23(1), Solid, Foil + 80% Braid, PVC Jacket, UL AWM 20276

### Technical Specifications

#### Product Overview

Environmental Space:	Indoor - Euroclass Eca
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#### Physical Characteristics (Overall)

##### Conductor

AWG	Stranding	Material	No. of Pairs
23	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	23 AWG

##### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
FPE - Foamed Polyethylene	1.45 mm	0.05 mm

##### Color Chart

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

##### Inner Shield Material

Type	Material
Tape	Aluminum / Polyester

InnerShield, Table Note:	Aluminum outside
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##### Outer Shield Material

Type	Material	Min. Coverage [%]
Braid	TC - Tinned Copper	65 %

##### Outer Jacket Material

Material	Color	Nominal Diameter	Diameter +/- Tolerance
PVC (UV stabilised and oil resistant)	Black	8 mm	0.3 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 MPa

#### Electrical Characteristics

## Conductor DCR

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

## Capacitance

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

Shielding:	S/FTP - Overall Braid / Individual Foil
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## Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance	Nominal Input Impedance
4 - 100	100 Ohm	5 Ohm	100 +/- 15 Ohm
100 - 250	100 Ohm	22 Ohm	
250 - 600	100 Ohm	25 Ohm	

## Delay

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

Coupling Attenuation Class:	Type II
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## Transfer Impedance

Frequency [MHz]	Transfer Impedance
1 Mhz	Max. 5 mOhm/m
10 Mhz	Max. 5 mOhm/m
30 Mhz	Max. 30 mOhm/m
100 Mhz	100 mOhm/m

## Current

Element	Max. Recommended Current [A]
Conductor	1.4 A

## Voltage

Voltage Rating [V]
30 V AC

## 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):	80 mm
Min Setting Radius:	40 mm

## Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011 and ISO/IEC 24702
CPR Euroclass:	Eca
GENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 7
ANSI Compliance:	ANSI/TIA/EIA 568-B.2-1 (2002)

## Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2016-01-22
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## Flammability, LS0H, Toxicity Testing

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

## Variants

Item #	Color
74004E.01305	Black
74004E.01500	Black
74004E.01B100	Black

Patent: <https://www.belden.com/resources/patents>

## History

Revision Number: 1

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