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Part Number: 74001E

DataTuff® Industrial Ethernet Cat 5e Permanent Installation Cable

Product Description

DataTuff Industrial ETHERNET, Cat5e 4PR, 1 Gb/s, AWG 24(1), Solid Conductor, Foil + 80% Braid, PVC jacket, UL AWM 2464

Technical Specifications

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	8
Total Number of Pairs:	4

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
Pair 3	White/Green & Green
Pair 4	White/Brown & Brown

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	Nominal Diameter	Diameter +/- Tolerance	Min. Wall Thickness	Nominal Wall Thickness
PVC - Polyvinyl Chloride	6.8 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 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	15 MPa

Electrical Characteristics

Conductor DCR

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

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 %

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:	-15°C To +60°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):	54 mm
Min Setting Radius:	27 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 568.2-D (2018)
IEEE Specification:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
EU RoHS Compliance Date (yyyy-mm-dd):	2016-01-08

Suitability

Suitability - Sunlight Resistance:	Yes - Black only

Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2

Part Number

Variants

Item #	Color	Length
74001E.012000	Black	2,000 m
74001E.01305	Black	305 m
74001E.01500	Black	500 m
74001E.01B100	Black	100 m

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

History

Update and Revision:	Revision Number: 0.171 Revision Date: 09-02-2019

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