Part Number: 74004PU

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, No Halogen PUR Jacket, UL AWM 20549

Technical Specifications

Product Overview

Environmental Space:	Indoor

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

Bonded-Pair:	No

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

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
PUR (Halogenfree and flame-retardant)	8 mm	0.3 mm

Construction and Dimensions

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

Cabling

Description
4 pairs twisted to cable core

Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	15 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

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 Ib
Segregation class according EN50174-2:	c

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:	-5°C To +50°C
Operating Temp Range:	-40°C To +70°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
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 7
ANSI Compliance:	ANSI/TIA/EIA 568-C.2 (2009)

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2016-01-22

Flammability, LS0H, Toxicity Testing

CSA Flammability:	FT2

Part Number

Variants

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

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

History

Revision Number:	1

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