Part Number: 70006E

DataTuff® PROFINET Cat 5e Type A - Permanent Installation Cable



Request Sample

Product Description

DataTuff PROFINET Type A, Cat 5e, 100Mb/s, Quad, AWG 22(1), Solid, Foil+ 85% Braid, PVC Jacket, UL AWG 2464

Technical Specifications

Product Overview

Environmental Space:	Indoor - Euroclass Eca

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Conductors
22	Solid	BC - Bare Copper	0.65 mm	4

Conductor Count:	4
Total Number of Pairs:	2
Conductor Size:	22 AWG

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
Polyethylene	1.5 mm	0.05 mm

Bonded-Pair:	No

Color Chart

Number	Color
Quad 1	White & Blue & Yellow & Orange

Inner Jacket Material

Material	Nominal Diameter
PVC Bedding	3.9 mm

Outer Shield Material

Type	Material	Min. Coverage [%]
Tape	Aluminum/Polyester	
Braid	TC - Tinned Copper	85 %

Outer Jacket Material

Material	Color	Nominal Diameter	Diameter +/- Tolerance
PVC - Polyvinyl Chloride	Green (RAL 6018)	6.5 mm	0.2 mm

Construction and Dimensions

Cabling

Description
1 quad with center filler

Electrical Characteristics

Conductor DCR

Max. Conductor DCR
57.1 Ohm/km

Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance
1 - 100	100 Ohm	15 Ohm

Delay

Max. Delay	Nominal Velocity of Propagation (VP) [%]
530 ns/100m	68 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. SRL (Structural Return Loss)
1 MHz	2.1 dB/100m	65.3 dB	64 dB	
4 MHz	4.1 dB/100m	56.3 dB	52 dB	23 dB
10 MHz	6.5 dB/100m	50.3 dB	44 dB	25 dB
16 MHz	8.3 dB/100m	47.2 dB	40 dB	25 dB
31.25 MHz	11.7 dB/100m	42.9 dB	34 dB	23.6 dB
62.5 MHz	17 dB/100m	38.4 dB	28 dB	21.5 dB
100 MHz	22 dB/100m	35.3 dB	24 dB	20.1 dB

Transfer Impedance

Frequency [MHz]	Transfer Impedance
10 Mhz	Max. 10 mOhm/m

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temp Range:	-5°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

Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
CPR Euroclass:	Eca
Data Category:	Category 5e

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2014-10-21

Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2

Part Number

Variants

Item #	Color
70006E.01500	Green
70006E.011000	Green
70006E.01305	Green
70006E.01B100	Green

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

History

Revision Number:	4

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