



**Part Number:** 70007PU

DataTuff® PROFINET Cat 5e Type B - Moderate Flexing Cable

**Product Description**

PROFINET Category 5e, 2 Pair (Quad), AWG 22 (7), Overall Foil+ 85% Braid, PUR No Halogen Outer Jacket

**Technical Specifications**

**Product Overview**

Environmental Space:	Indoor
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**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	Construction n x D	No. of Conductors
22	Stranded	TC - Tinned Copper	7x0.25 mm	4

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

**Insulation**

Material	Nominal Diameter	Diameter +/- Tolerance
PO - Polyolefin	1.55 mm	0.05 mm

Bonded-Pair:	No
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**Color Chart**

Number	Color
Quad 1	White & Blue & Yellow & Orange

**Inner Jacket Material**

Material	Nominal Diameter
PVC Bedding	4.1 mm

**Outer Shield Material**

Type	Material	Thickness of Foil	Min. Coverage [%]
Tape	Aluminum/Polyester	50 / 23 µm	
Braid	TC - Tinned Copper		85 %

**Outer Jacket Material**

Material	Color	Nominal Diameter	Diameter +/- Tolerance
PUR - Polyurethane	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 dB	64 dB	
4 MHz	4.1 dB/100m	56 dB	52 dB	23 dB
10 MHz	6.5 dB/100m	50 dB	44 dB	25 dB
16 MHz	8.3 dB/100m	47 dB	40 dB	25 dB
31.25 MHz	11.7 dB/100m	43 dB	34 dB	23.6 dB
62.5 MHz	17 dB/100m	38 dB	28 dB	21.5 dB
100 MHz	22 dB/100m	35 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 +50°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
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## Standards

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

## Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2015-12-14
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## Flammability, LSOH, Toxicity Testing

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

### Variants

Item #	Color
70007PU.01305	Green
70007PU.01500	Green

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

Revision Number:	3
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