



**Product:** [70007PU](#)

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, PUR jkt, PROFINET Type B

## Product Description

DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, SF/UTP - Overall Braid + Foil shielding, PUR jacket , PROFINET Type B

## Technical Specifications

### Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc. Not rodent protected.
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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

#### 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
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.1 mm

Table Notes:	Bedding
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#### Outer Shield Material

Type	Material	Thickness of Foil	Min. Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	50 / 23 µm	
Braid	Tinned Copper (TC)		85%

#### Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
PUR - Polyurethane	6.5 mm	0.2 mm

### 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

Table Notes:	Reference standard: ISO/IEC 11801 ed 2.0, Cat 5e
General Electrical Parameters Notes:	Reference standard: ISO/IEC 11801 ed 2.0, Cat 5e

#### 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

UL AWM Style Compliance:	UL AWM 20549
IEC Compliance:	ISO/IEC 11801-1
Data Category:	Category 5e

#### Applicable Environmental and Other Programs

Environmental Space:	Indoor
EU RoHS Compliance Date (yyyy-mm-dd):	2015-12-14

#### Suitability

Suitability - Burial:	No
Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes - Black only
Suitability - Sunlight Resistance:	Yes

#### Flammability, LSOH, Toxicity Testing

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

#### Variants

Item #	Color	Putup Type	Length	EAN
70007PU.01305	Green	Reel	305 m	8719605009418
70007PU.01500	Green	Reel	500 m	8719605009425

## History

Update and Revision:	Revision Number: 0.216 Revision Date: 12-18-2020
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