



**Product:** [70008PU](#)

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, PUR HF jkt, PROFINET type C, 5M Trailing

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## Product Description

DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil + Braid(s) shielding, PUR Halogen Free jacket , PROFINET type C, 5M trailing

## Technical Specifications

### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	Construction n x D	No. of Quads
22	19x34	TC - Tinned Copper	19x0.15 mm	1

Conductor Count:	4
Total Number of Pairs:	2

#### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PE - Polyethylene	1.63 mm	0.05 mm

Bonded-Pair:	No
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#### Color Chart

Number	Color
Quad 1	White & Blue & Yellow & Orange

#### Inner Shield Material

Element
Data Pair(s)

#### Inner Jacket Material

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.2 mm

Table Notes:	Bedding
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#### Outer Shield Material

Type	Material	Min. Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	
Braid	Tinned Copper (TC)	85%

#### Outer Jacket Material

Material	Color	Nominal Diameter	Diameter +/- Tolerance	Separator Material
PUR - Polyurethane (Halogen Free)	Green (RAL 6018)	6.5 mm	0.2 mm	non-Woven Tape

### 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 dB/100m	56 dB	52 dB	23 dB
10 MHz	6.3 dB/100m	50 dB	44 dB	25 dB
16 MHz	8 dB/100m	47 dB	40 dB	25 dB
31.25 MHz	11.4 dB/100m	43 dB	34 dB	23.6 dB
62.5 MHz	16.5 dB/100m	38 dB	28 dB	21.5 dB
100 MHz	21.3 dB/100m	35 dB	24 dB	20.1 dB

### Transfer Impedance

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

### Voltage

UL Voltage Rating	Voltage Rating [V]
300 V	300 V

## Temperature Range

Installation Temp Range:	-5°C To +60°C
UL Temp Rating:	80°C
Storage Temp Range:	-40°C To +80°C
Operating Temp Range:	-40°C to +80°C
Operating Temp Range (Drag Chain Op):	-5°C To +60°C

## Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
Torsion Test: Min Number of Torsions:	1000000
Torsion Test: Description:	+/- 180° ,12x/min over 1mtr
Max. Pull Tension:	160 N
Min. Bend Radius During Installation:	65 mm
Min Bend Radius During Operation:	30 mm
Min. Bend Radius (Continuous Flexing):	65 mm
Min Setting Radius:	30 mm
Min No. of Drag Chain Cycles:	5000000
Drag Chain Parameters:	a= 3m/s <sup>2</sup> v= 3 m/s and r= 60 mm

## Standards

UL AWM Style Compliance:	UL AWM 20549
ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
Data Category:	Category 5e

## Applicable Environmental and Other Programs

Environmental Space:	Indoor
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## Flammability, LS0H, Toxicity Testing

UL Flammability:	Horizontal flametest
CSA Flammability:	FT2
IEC 60754-1 - Halogen Amount:	Pass

## Part Number

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### Variants

Item #	Color	Putup Type	Length	EAN
70008PU.01B100	Green	Flat Box	100 m	8719605009463
70008PU.01305	Green	Reel	305 m	8719605009449
70008PU.01500	Green	Reel	500 m	8719605009456
70008PU.011000	Green	Reel	1,000 m	8719605009432

## History

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Update and Revision:	Revision Number: 0.219 Revision Date: 07-30-2021
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