



**Product:** [70009PU](#)

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, PUR HF jkt, PROFINET type C, 2M torsion

[Request Sample](#)

## Product Description

DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyethylene insulation, SF/UTP - Overall Braid + Foil shielding, PUR Halogen Free jacket, PROFINET type C, 2M torsion

## Technical Specifications

### Product Overview

Suitable Applications:	PROFINET, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc
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### Construction Details

#### Conductor

Size	Stranding	Material	Number of Pairs	Number of Element
22 AWG	19x0.15 mm	TC - Tinned Copper	2	4

#### Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene	1.55 mm (0.0610 in)	White & Blue & Yellow & Orange
		1 Quad

#### Cable Core

Description
1 quad with center filler

#### Inner Jacket

Material	Nom. Diameter
TPE - Thermoplastic Elastomer	4.3 mm (0.17 in)

Table Notes:	Bedding
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#### Outer Shield

Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	85%

#### Outer Jacket

Separator	Material	Nom. Diameter
non-Woven Tape	PUR - Polyurethane (Halogen Free)	6.5 mm (0.26 in)

Table Notes:	Sheath Resists Weld-Splatter
Overall Cable Diameter (Nominal):	6.5 mm (0.26 in)

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Nom. Characteristic Impedance
57.1 Ohm/km	100 Ohm

#### Delay

Max. Delay	Nom. Velocity of Prop.
530 ns/100m	68%

#### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. SRL (Structural Return Loss) [dB]
1	2.1 dB/100m	65	62	64	61	
4	4 dB/100m	56	53	52	49	23
10	6.3 dB/100m	50	47	44	41	25
16	8 dB/100m	47	44	40	37	25
31.25	11.4 dB/100m	43	40	34	31	23.6
62.5	16.5 dB/100m	38	35	28	25	21.5
100	21.3 dB/100m	35	32	24	21	20.1

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

#### Transfer Impedance

Frequency	Max. Transfer Impedance
10 Mhz	Max. 10 mOhm/m

#### Voltage

Voltage Rating
300 V

## Mechanical Characteristics

#### Temperature

Operating	Installation	Storage
-40°C to +80°C	-5°C To +60°C	-40°C to +80°C

#### Trailing/Flexing Properties

Motion	Number of Cycles	Radius	Speed	Acceleration	Traverse Length	Torsion Angle
Trailing/Bending	2,000,000	60 mm	3 m/s	3 m/s <sup>2</sup>		
Torsion/Twisting	2,000,000				1 m	180°

#### Bend Radius

Stationary Min.
30 mm (1.2 in)

## Standards and Compliance

Environmental Suitability:	Indoor, Indoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	FT2
AWM Compliance:	AMW 20549
Data Category:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1
European Directive Compliance:	EU CE Mark

## History

Update and Revision: Revision Number: 0.252 Revision Date: 12-15-2021

#### Variants

Item #	Color	Putup Type	Length	EAN
70009PU.01500	Green	Reel	500 m	8719605009470

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