



Product: [74001PU](#)

DataTuff® 5E, 4PR #24 Sol BC, PO ins, SF/UTP, PUR HF jkt, AWM 20549

Product Description

DataTuff® 5E, 4 Pair AWG 24 Bare Copper - Solid, Polyolefin (PO, PE, PP) insulation, SF/UTP - Overall Braid + Foil shielding, PUR Halogen Free jacket, AWM 20549

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	No. of Pairs
24	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PO - Polyolefin	1.1 mm	0.05 mm

Bonded-Pair:	No
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Color Chart

Number	Color
Pair 1	White/Blue & Blue
Pair 2	White/Orange & Orange
Pair 3	White/Green & Green
Pair 4	White/Brown & Brown

Outer Shield Material

Type	Material	Min. Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	
Braid	Tinned Copper (TC)	80%

Table Notes:	Aluminum outside
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Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance	Min. Wall Thickness	Nominal Wall Thickness
PUR - Polyurethane (Halogen Free)	6.6 mm	0.3 mm	0.6 mm	0.8 mm

Table Notes:	Flame Retardant Sheath
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Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	10.3 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. Conductor Loop	Max. DCR Unbalanced Within Pair [%]
93.8 Ohm/km	19 Ohm/1000ft	2 %

Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
1.6 pF/m	56 pF/m

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance	Nominal Input Impedance
100 Ohm	5 Ohm	100 +/- 15 Ohm

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
40 ns/100m	60%

Current

Element	Max. Recommended Current [A]
Conductor	1.4 Amps per Conductor

Voltage

Voltage Rating [V]
450 V DC and 300 V AC

Temperature Range

Installation Temp Range:	-15°C To +60°C
Operating Temp Range:	-40°C To +80°C

Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
Max. Pull Tension:	80 N
Min Bend Radius (W/o Pulling Strength):	70 mm
Min Setting Radius:	35 mm

Standards

UL AWM Style Compliance:	UL AWM 20549
IEC Compliance:	ISO/IEC 11801-1
CENELEC Compliance:	EN 50173-1
Data Category:	Category 5e
ANSI Compliance:	ANSI/TIA 568.2-D (2018)
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3

Applicable Environmental and Other Programs

Environmental Space:	Indoor
EU RoHS Compliance Date (yyyy-mm-dd):	2016-01-12

Suitability

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

Flammability, LS0H, Toxicity Testing

CSA Flammability:	FT2
IEC 60754-1 (EN50267-1)- Halogen Amount:	Zero
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Max. Conductivity:	10 µS/mm
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Min. pH:	4.3

Part Number

Variants

Item #	Color	Putup Type	Length	EAN
74001PU.01305	Black	Reel	305 m	8719605013002
74001PU.01500	Black	Reel	500 m	8719605013019

History

Update and Revision:	Revision Number: 0.211 Revision Date: 12-18-2020
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