



Product: [74001E](#)

DataTuff® 5E, 4PR #24 Sol BC, PO ins, SF/UTP, PVC jkt, AWM 2464

Product Description

DataTuff® 5E, 4 Pair AWG 24 Bare Copper - Solid, Polyolefin (PO, PE, PP) insulation, SF/UTP - Overall Braid + Foil shielding, PVC jacket , AWM 2464

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
PVC - Polyvinyl Chloride	6.8 mm	0.3 mm	0.8 mm	0.8 mm

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:	15 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):	54 mm
Min Setting Radius:	27 mm

Standards

UL AWM Style Compliance:	UL AWM 2464
IEC Compliance:	ISO/IEC 11801-1
CPR Euroclass:	Eca
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 - Euroclass Eca
EU RoHS Compliance Date (yyyy-mm-dd):	2016-01-08

Suitability

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

Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
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Part Number

Variants

Item #	Color	Putup Type	Length	EAN
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74001E.01B100	Black	Flat Box	100 m	8719605012968
74001E.01305	Black	Reel	305 m	8719605012944
74001E.01500	Black	Reel	500 m	8719605012951
74001E.012000	Black	Reel	2,000 m	8719605012937

History

Update and Revision:	Revision Number: 0.254 Revision Date: 12-18-2020
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