

Product: 74032PU

DataTuff Ind SPE 40mGb 24AWG 19 STR SF/UTP PUR

Product Description

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Technical Specifications

Product Overview

Suitable Applications:	Robotics, 1 single pair Ethernet up to 600 MHz accord. IEEE 802.3bp (1000BASE-T1)

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Stranded	TC - Tinned Copper	1

Conductor Count:	2

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	1.9 mm

Color Chart

Color
Natural & Natural/Blue

Outer Shield Material

Type	Material	Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	80%

Outer Jacket Material

Material	Nominal Diameter
PUR - Polyurethane	5.5 mm

Construction and Dimensions

Min Elongation at Breakof Conductors:	8 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 MPa
Min Tensile Strength of Jacket:	10.3 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]
94.2 Ohm/km at 20°C	2 %

Capacitance

Max. Capacitance Unbalance

1,600 pF/km

Dielectric Strength:	2 kVac/1 min
Insulation Resistance:	5000 MOhm*km
Insulation Resistance (Cond to Cond):	5000 MOhm*km
Insulation Resistance (Cond to Screen):	5000 MOhm*km

Impedance

Nominal Characteristic Impedance
100 Ohm

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. RL (Return Loss) [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	3.1	20 dB	40 dB	40 dB
4 MHz	5.6	23 dB	40 dB	28 dB
10 MHz	8.7	25 dB	35 dB	20 dB
20 MHz	12.3	25 dB	30.5 dB	14 dB
30 MHz	15.1	23.5 dB	27.8 dB	10.5 dB
100 MHz	27.8	19 dB	20 dB	5 dB
600 MHz	70.7	15.6 dB	8.3 dB	5 dB
1000 MHz				

Voltage

Non-UL Voltage Rating
60 V

Temperature Range

Operating Temp Range:	-40°C To +80°C

Mechanical Characteristics

Max Dielectric Shrinkage:	5 %
Dielectric Shrinkage Description:	Shrinkage of Insualtion (100+/2°CX1hr)/150mm
Cold Bend Test:	No Crack
Hygroscopicity:	Weight increasing not exceed 1% (for 3hrs)
Wicking:	The filter paper shall not wet (for 6 hrs)
IRM 902 Mineral Oil Resistance Test:	At 100C° x 96hr- Tensile Strength: ≥ 70% of Original Elongation at break:≥ 65% of Original
UV Resistance 720h per UL1581:	(300h) Tensile Strength (Mpa) - 85% of original, Elongation at break (%) - 85% of original

Standards

UL AWM Style Compliance:	AWM 20549
CSA AWM Compliance:	AWM I A/B
ISO/IEC Compliance:	IEC 61156-12 NP, UL 758

Flammability, LS0H, Toxicity Testing

C(UL) Flammability:	FT2
IEC Flammability:	IEC 60332-1
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	10
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3

Part Number

Variants

Item #	Color	Put-Up Type	Length
74032PU 0101000	Black	Reel	1,000 ft
74032PU-C500	Blue, Light	Reel	500 m
74032PU 0061000	Blue, Light	Reel	1,000 ft
74032PU 1NH1000	Teal	Reel	1,000 ft

History

Update and Revision:	Revision Number: 0.46 Revision Date: 07-12-2021

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