



Product: [SPE403](#)

DataTuff Ind SPE 40m 1Gbps 100 Ohm 24AWG SFTP LSPUR

Product Description

DataTuff Industrial Single Pair Ethernet 40m 1Gbps 100 Ohm 24AWG (Stranded) Tinned Copper, PE Insulation, Overall Beldfoil®+Tinned Copper Braid(80%) Shield, LSPUR Outer Jacket

Technical Specifications

Product Overview

Suitable Applications:	Noisy 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
24 AWG	Stranded	TC - Tinned Copper	1

Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene	0.075 in (1.9 mm)	Natural & Natural/Blue

Outer Shield

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

Outer Jacket

Material	Nom. Diameter
PUR - Polyurethane	0.217 in (5.51 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
94.2 Ohm/km	1,600 pF/km

Delay

Frequency	Max. Delay	Max. Delay Skew
100 MHz	538 ns/100m	25 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. RL (Return Loss) [dB]	Min. TCL [dB]	Min. ELTCTL [dB]	Max. Surface Transfer Impedance [mOhm/m]	Min. Coupling Attenuation [dB]
1	3.1 dB/100m	20	40	40	50	
4	5.6 dB/100m	23	40	28	76	
8	7.8 dB/100m	24.5	36.5	21.9	93	
10	8.7 dB/100m	25	35.0	20.0	100	
16	11 dB/100m	25	31.9	15.9	135	
20	12.3 dB/100m	25	30.5	14	155	

25	13.8 dB/100m	24.2	29	12	178	
30	15.1 dB/100m	23.5	27.8	10.5	200	84
60	21.4 dB/100m	20.9	23.3	5		85
100	27.8 dB/100m	19	20	5		85
200	39.7 dB/100m	16.4	15.5	5		79
250	44.6 dB/100m	15.6	14	5		77
300	49.0 dB/100m	14.9	12.8	5		75
350	53.2 dB/100m	14.3	11.8	5		74
400	57.0 dB/100m	13.8	11	5		73
450	60.7 dB/100m	13.4	10.2	5		72
500	64.1 dB/100m	13	9.5	5		71
550	67.5 dB/100m	12.6	8.9	5		70
600	70.7 dB/100m	12.3	8.3	5		69

Voltage

UL Voltage Rating	Voltage Rating
300 V (UL AWM 20549)	300 V (IEC 61156-12)

Mechanical Characteristics

Temperature

UL Temperature	Operating
80°C	-40°C To +80°C

Bend Radius

Installation Min.
2.2 in (56 mm)

Bulk Cable Weight:	11.5 lbs/1000ft
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Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	FT2, IEC 60332-1-2
AWM Compliance:	AWM 20549, AWM I A/B
IEEE Compliance:	IEEE 802.3bp
ISO/IEC Compliance:	IEC 61156-12
European Halogen Free Standards:	IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 μ S/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.
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History

Update and Revision:	Revision Number: 0.32 Revision Date: 05-05-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length
SPE403 0101000	Black	Reel	1,000 ft
SPE403 0061000	Blue, Light	Reel	1,000 ft
SPE403 1NH1000	Teal	Reel	1,000 ft

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