



Product: [SPE405](#)

DataTuff Ind SPE 40m 1Gbps 100 Ohm 22AWG SFTP PVC

Product Description

DataTuff Industrial Single Pair Ethernet 40m 1Gbps 100 Ohm 22AWG (Solid) Bare Copper, Foam PE Insulation, Overall Beldfoil®+Tinned Copper Braid(80%) Shield, PVC Outer Jacket

Technical Specifications

Product Overview

Suitable Applications:	Noisy environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
------------------------	--

Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
22 AWG	Solid	BC - Bare Copper	1

Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene (Foam)	0.069 in (1.8 mm)	White & Blue

Outer Shield

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

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.201 in (5.11 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
54.3 Ohm/km	1,200 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. SRL (Structural Return Loss) [dB]	Min. TCL [dB]	Min. ELCTL [dB]	Max. Surface Transfer Impedance [mOhm/m]	Min. Coupling Attenuation [dB]
1	2.1 dB/100m	20		40	40	50	
4	3.7 dB/100m	23		40	28	76	
8	5.2 dB/100m	24.5		36.5	21.9	93	
10	5.8 dB/100m	25		35.0	20.0	100	
16	7.3 dB/100m	25		31.9	15.9	135	
20	8.2 dB/100m	25		30.5	14	155	

25	9.2 dB/100m	24.3		29	12	178	
30	10.1 dB/100m	23.8		27.8	10.5	200	85
60	14.3 dB/100m	21.7		23.3	5		85
100	18.5 dB/100m		20.1	20	5		85
200	26.5 dB/100m	18.0		15.5	5		79
250	29.7 dB/100m	17.3		14	5		77
300	32.7 dB/100m	16.8		12.8	5		75
350	35.4 dB/100m	16.3		11.8	5		74
400	38.0 dB/100m	15.9		11	5		73
450	40.4 dB/100m	15.5		10.2	5		72
500	42.8 dB/100m	15.2		9.5	5		71
550	45.0 dB/100m	14.9		8.9	5		70
600	47.1 dB/100m	14.7		8.3	5		69

Voltage

UL Voltage Rating	Voltage Rating
300 V (UL AWM 2095)	300 V (IEC 61156-11)

Mechanical Characteristics

Temperature

UL Temperature	Operating
80°C	-30°C To +80°C

Bend Radius

Installation Min.
2 in (51 mm)

Bulk Cable Weight:	10.9 lbs/1000ft
--------------------	-----------------

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	FT2, IEC 60332-1-2
AWM Compliance:	AWM 2095, AWM I A/B
IEEE Compliance:	IEEE 802.3bp
ISO/IEC Compliance:	IEC 61156-11
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.
--------	--

History

Update and Revision:	Revision Number: 0.89 Revision Date: 01-20-2023
----------------------	---

Part Numbers

Variants

Item #	Color	Putup Type	Length
SPE405 0101000	Black	Reel	1,000 ft
SPE405 0061000	Blue, Light	Reel	1,000 ft

© 2023 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.