



Product: [70007E](#)

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, PVC jkt, PROFINET Type B

Product Description

DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, SF/UTP - Overall Braid + Foil shielding, PVC jacket, PROFINET Type B

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Construction n x D	No. of Quads
22	Stranded	TC - Tinned Copper	7x0.25 mm	1

Conductor Count:	4
Total Number of Pairs:	2

Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PO - Polyolefin	1.55 mm	0.05 mm

Bonded-Pair:	No
--------------	----

Color Chart

Number	Color
Quad 1	White & Blue & Yellow & Orange

Inner Jacket Material

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.1 mm

Table Notes:	Bedding
--------------	---------

Outer Shield Material

Type	Material	Thickness of Foil	Min. Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	50 µm	
Braid	Tinned Copper (TC)		85%

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
PVC - Polyvinyl Chloride	6.5 mm	0.2 mm

Electrical Characteristics

Conductor DCR

Max. Conductor DCR
57.1 Ohm/km

Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance
1 - 100	100 Ohm	15 Ohm

Delay

Max. Delay	Nominal Velocity of Propagation (VP) [%]
530 ns/100m	68%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. SRL (Structural Return Loss)
1 MHz	2.1 dB/100m	65.3 dB	64 dB	
4 MHz	4.1 dB/100m	56.3 dB	52 dB	23 dB
10 MHz	6.5 dB/100m	50.3 dB	44 dB	25 dB
16 MHz	8.3 dB/100m	47.2 dB	40 dB	25 dB
31.25 MHz	11.7 dB/100m	42.9 dB	34 dB	23.6 dB
62.5 MHz	17 dB/100m	38.4 dB	28 dB	21.5 dB
100 MHz	22 dB/100m	35.3 dB	24 dB	20.1 dB

Table Notes: Reference standard: ISO/IEC 11801 ed 2.0, Cat 5e

General Electrical Parameters Notes: Reference standard: ISO/IEC 11801 ed 2.0, Cat 5e

Transfer Impedance

Frequency [MHz]	Transfer Impedance
10 Mhz	Max. 10 mOhm/m

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temp Range:	-5°C To +60°C
Storage Temp Range:	-40°C To +80°C
Operating Temp Range:	-40°C To +80°C

Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
-----------------	---------------

Standards

UL AWM Style Compliance:	UL AWM 2464
IEC Compliance:	ISO/IEC 11801-1
CPR Euroclass:	Eca
Data Category:	Category 5e

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01

Suitability

Suitability - Oil Resistance:	Yes
Suitability - Sunlight Resistance:	Yes - Black only

Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
-------------------	---------------

Part Number

Variants

Item #	Color	Putup Type	Length	EAN
70007E.01B100	Green	Flat Box	100 m	8719605009333
70007E.01305	Green	Reel	305 m	8719605009319
70007E.01500	Green	Reel	500 m	8719605009326
70007E.011000	Green	Reel	1,000 m	8719605009296
70007E.011525	Green	Reel	1,525 m	8719605009302

History

© 2020 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.