

Part Number: 70006NH

DataTuff® PROFINET Cat 5e Type A - Permanent Installation Cable



Request Sample

Product Description

DataTuff PROFINET Type A, Cat 5e, 100Mb/s, Quad, AWG 22(1), Solid, Foil+ 85% Braid, No Halogen Jacket, UL AWG 21286

Technical Specifications

Product Overview

| | |
|----------------------|------------------------|
| Environmental Space: | Indoor - Euroclass Eca |
|----------------------|------------------------|

Physical Characteristics (Overall)

| Conductor | | | | |
|------------------------|-----------|------------------|------------------|-------------------|
| AWG | Stranding | Material | Nominal Diameter | No. of Conductors |
| 22 | Solid | BC - Bare Copper | 0.65 mm | 4 |
| Conductor Count: | | | | 4 |
| Total Number of Pairs: | | | | 2 |
| Conductor Size: | | | | 22 AWG |

| Insulation | | |
|--------------|------------------|------------------------|
| Material | Nominal Diameter | Diameter +/- Tolerance |
| Polyethylene | 1.5 mm | 0.05 mm |
| Bonded-Pair: | | No |

| Color Chart | |
|-------------|--------------------------------|
| Number | Color |
| Quad 1 | White & Blue & Yellow & Orange |

| Inner Jacket Material | |
|-----------------------|------------------|
| Material | Nominal Diameter |
| FRNC / LSZH Bedding | 3.9 mm |

| Outer Shield Material | | | |
|-----------------------|--------------------|-------------------|-------------------|
| Type | Material | Thickness of Foil | Min. Coverage [%] |
| Tape | Aluminum/Polyester | 50 µm | |
| Braid | TC - Tinned Copper | | 85 % |

| Outer Jacket Material | | | |
|---|------------------|------------------|------------------------|
| Material | Color | Nominal Diameter | Diameter +/- Tolerance |
| LSZH / FRNC (UV stabilised and oil resistant) | Green (RAL 6018) | 6.5 mm | 0.2 mm |

Construction and Dimensions

| Cabling | |
|---------------------------|--|
| Description | |
| 1 quad with center filler | |

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 |

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 +50°C |
| Storage Temp Range: | -40°C to +70°C |
| Operating Temp Range: | -40°C To +70°C |

Mechanical Characteristics

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

Standards

| | |
|---------------------|--|
| ISO/IEC Compliance: | ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011 |
| CPR Euroclass: | Eca |
| Data Category: | Category 5e |

Applicable Environmental and Other Programs

| | |
|---------------------------------------|------------|
| EU RoHS Compliance Date (yyyy-mm-dd): | 2014-10-21 |
|---------------------------------------|------------|

Flammability, LS0H, Toxicity Testing

| | |
|--|---------------|
| ISO/IEC Flammability: | IEC 60332-1-2 |
| Amount of Halogen acc. to IEC 60754-1 & EN50267-1: | Zero |

Part Number

Variants

| Item # | Color |
|----------------|-------|
| 70006NH.011000 | Green |
| 70006NH.01305 | Green |
| 70006NH.01500 | Green |
| 70006NH.01B100 | Green |

| | |
|---------|---|
| Patent: | https://www.belden.com/resources/patents |
|---------|---|

History

© 2018 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.