

**Part Number:** 72001NH

DataTuff® Industrial Ethernet Cat 5e Permanent Installation Cable



### Product Description

DataTuff Industrial ETHERNET Cat 5e 2 Pair, 24 AWG, Overall Foil + 80% Braid, LSNH Outer Jacket, UL AWG 21286

### Technical Specifications

#### Physical Characteristics (Overall)

##### Conductor

| AWG | Stranding | Material         | No. of Pairs |
|-----|-----------|------------------|--------------|
| 24  | Solid     | BC - Bare Copper | 2            |

|                        |   |
|------------------------|---|
| Conductor Count:       | 4 |
| Total Number of Pairs: | 4 |

##### Insulation

| Material           | Nominal Diameter | Diameter +/- Tolerance |
|--------------------|------------------|------------------------|
| PP - Polypropylene | 1.1 mm           | 0.05 mm                |

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

##### Color Chart

| Number | Color                 |
|--------|-----------------------|
| Pair 1 | White/Blue & Blue     |
| Pair 2 | White/Orange & Orange |

##### Outer Shield Material

| Type  | Material           | Min. Coverage [%] |
|-------|--------------------|-------------------|
| Tape  | Aluminum/Polyester |                   |
| Braid | TC - Tinned Copper | 80 %              |

|                          |                  |
|--------------------------|------------------|
| Outer Shield Table Note: | Aluminum outside |
|--------------------------|------------------|

##### Outer Jacket Material

| Material    | Nominal Diameter | Diameter +/- Tolerance | Min. Wall Thickness |
|-------------|------------------|------------------------|---------------------|
| LSZH / FRNC | 6 mm             | 0.3 mm                 | 0.8 mm              |

#### Construction and Dimensions

|                                       |       |
|---------------------------------------|-------|
| Min Elongation at Breakof Conductors: | 10 %  |
| Min Elongation at Breakof Insulation: | 100 % |
| Min Elongation at Breakof Jacket:     | 100 % |
| Min Tensile Strength of Jacket:       | 9 MPa |

#### Electrical Characteristics

##### Conductor DCR

| Max. Conductor DCR | Max. Conductor Loop | Max. DCR Unbalanced Within Pair [%] |
|--------------------|---------------------|-------------------------------------|
| 93.8 Ohm/km        | 19 Ohm/1000ft       | 2 %                                 |

##### Capacitance

| Max. Capacitance Unbalance | Max. Mutual Capacitance |
|----------------------------|-------------------------|
| 1.6 pF/m                   | 56 pF/m                 |

#### Impedance

| Nominal Characteristic Impedance | Nominal Characteristic Tolerance | Nominal Input Impedance |
|----------------------------------|----------------------------------|-------------------------|
| 100 Ohm                          | 5 Ohm                            | 100 +/- 15 Ohm          |

#### Delay

| Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|-----------------|------------------------------------------|
| 40 ns/100m      | 60 %                                     |

#### Current

| Element   | Max. Recommended Current [A] |
|-----------|------------------------------|
| Conductor | 1.4 A                        |

#### Voltage

| Voltage Rating [V]    |
|-----------------------|
| 450 V DC and 300 V AC |

### Temperature Range

|                          |                |
|--------------------------|----------------|
| Installation Temp Range: | -5°C To +50°C  |
| Operating Temp Range:    | -40°C To +80°C |

### Mechanical Characteristics

|                                         |               |
|-----------------------------------------|---------------|
| Oil Resistance:                         | IEC 60811-2-1 |
| Max Recommended Pulling Tension:        | 80 N          |
| Min Bend Radius (W/o Pulling Strength): | 60 mm         |
| Min Setting Radius:                     | 30 mm         |

### Standards

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| ISO/IEC Compliance: | ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011 and ISO/IEC 24702 |
| CENELEC Compliance: | EN 50173-1 Ed. 3:2011                                        |
| Data Category:      | Category 5e                                                  |
| ANSI Compliance:    | ANSI/TIA 568.2-D (2018)                                      |

### Applicable Environmental and Other Programs

|                                       |            |
|---------------------------------------|------------|
| Environmental Space:                  | Indoor     |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2016-01-04 |

### Flammability, LSOH, 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 | Length |
|----------------|-------|--------|
| 72001NH.02305  | Black | 305 m  |
| 72001NH.02500  | Black | 500 m  |
| 72001NH.02B100 | Black | 100 m  |

|         |                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------|
| Patent: | <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> |
|---------|-------------------------------------------------------------------------------------------------|

### History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.167 Revision Date: 10-21-2019 |
|----------------------|--------------------------------------------------|

© 2019 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.