

**Part Number:** 74001E

DataTuff® Industrial Ethernet Cat 5e Permanent Installation Cable



### Product Description

DataTuff Industrial ETHERNET, Cat5e 4PR, 1 Gb/s, AWG 24(1), Solid Conductor, Foil + 80% Braid, PVC jacket, UL AWM 2464

### Technical Specifications

#### Product Overview

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

#### Physical Characteristics (Overall)

##### Conductor

| AWG | Stranding | Material         | No. of Pairs |
|-----|-----------|------------------|--------------|
| 24  | Solid     | BC - Bare Copper | 4            |

|                        |        |
|------------------------|--------|
| Conductor Count:       | 8      |
| Total Number of Pairs: | 4      |
| Conductor Size:        | 24 AWG |

##### 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 |
| Pair 3 | White/Green & Green   |
| Pair 4 | White/Brown & Brown   |

##### 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                 | Color | Nominal Diameter | Diameter +/- Tolerance | Min. Wall Thickness | Nominal Wall Thickness |
|--------------------------|-------|------------------|------------------------|---------------------|------------------------|
| PVC - Polyvinyl Chloride | Black | 6.8 mm           | 0.3 mm                 | 0.8 mm              | 0.8 mm                 |

#### Construction and Dimensions

|                                       |       |
|---------------------------------------|-------|
| Min Elongation at Breakof Conductors: | 10 %  |
| Min Elongation at Breakof Insulation: | 100 % |

##### Cabling

| Description   |
|---|
| 4 pairs twisted to cable core covered with a polyester foil |

|                                   |        |
|-----------------------------------|--------|
| Min Elongation at Breakof Jacket: | 100 %  |
| Min Tensile Strength of Jacket:   | 15 MPa |

## Electrical Characteristics

### Conductor DCR

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

### 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: | -15°C To +60°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): | 70 mm         |
| Min Setting Radius:                     | 27 mm         |

## Standards

|                     |  |
|---------------------|--|
| ISO/IEC Compliance: | ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011 and ISO/IEC 24702 |
| CPR Euroclass:      | Eca  |
| CENELEC Compliance: | EN 50173-1 Ed. 3:2011  |
| Data Category:      | Category 5e  |
| ANSI Compliance:    | ANSI/TIA/EIA 568-C.2 (2009)                                  |
| IEEE Specification: | PoE: IEEE 802.3bt Type 1, Type 2, Type 3                     |

## Applicable Environmental and Other Programs

|                                       |            |
|---------------------------------------|------------|
| EU RoHS Compliance Date (yyyy-mm-dd): | 2016-01-08 |
|---------------------------------------|------------|

## Suitability

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

## Flammability, LS0H, Toxicity Testing

|                       |               |
|-----------------------|---------------|
| ISO/IEC Flammability: | IEC 60332-1-2 |
|-----------------------|---------------|

## Part Number

### Variants

| Item #        | Color |
|---------------|-------|
| 74001E.012000 | Black |
| 74001E.01305  | Black |

|               |       |
|---------------|-------|
| 74001E.01500  | Black |
| 74001E.01B100 | Black |

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

|                  |   |
|------------------|---|
| Revision Number: | 5 |
|------------------|---|

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