

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 |

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 % |

| | |
|-------|------------------|
| Note: | Aluminum outside |
|-------|------------------|

Outer Jacket Material

| Material | Color | Nominal Diameter | Diameter +/- Tolerance | Min. Wall Thickness | Nominal Wall Thickness |
|--------------------------|-------|------------------|------------------------|---------------------|------------------------|
| PVC - Polyvinyl Chloride | Black | 7 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 |

Shielding: SF/UTP - Overall Braid + Foil

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: | 35 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-B.2-1 (2002) |

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.013005 | Black |
| 74001E.01500 | Black |
| 74001E.01B100 | Black |

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

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

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