



Product: [7934A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, PE Jkt, OSP BURIAL

Request Sample

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, PE Outer Jacket, Polymer Gel Waterblocked OSP BURIAL

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | burial, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
| Patent: | This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents . |

Construction Details

Conductor

| Element | Size | Stranding | Material | No. of Pairs | No. of Elements |
|---------|--------|-----------|------------------|--------------|-----------------|
| Pair(s) | 24 AWG | Solid | BC - Bare Copper | 4 | 4 |

Insulation

| Material | Color Code |
|-----------------|--|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |
| Bonded-Pair: | Yes |
| Waterblocking: | Gel Filled |

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|-----------------------------------|--------------------|---------|
| PE - Polyethylene | 0.230 in (5.84 mm) | No |
| Overall Cable Diameter (Nominal): | 0.230 in (5.84 mm) | |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 150 pF/ft |

Delay

| Max. Delay | Max. Delay Skew | Nom. Velocity of Prop. |
|-------------|-----------------|------------------------|
| 538 ns/100m | 45 ns/100m | 70% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. SRL (Structural Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--|--|----------------------------------|
| 1 | 2.0 dB/100m | 65.3 | 62.3 | 63 | 60 | 63.8 | 60.8 | 20 | 23 | 100 ± 15 | 102.5 ± 7.5 |
| 4 | 4.1 dB/100m | 56.3 | 53.3 | 51 | 49 | 51.7 | 48.7 | 23.6 | 23 | 100 ± 15 | 102.5 ± 7.5 |
| 8 | 5.8 dB/100m | 51.8 | 48.8 | 46 | 43 | 45.7 | 42.7 | 25.4 | 24.5 | 100 ± 15 | 101 ± 6 |
| 10 | 6.5 dB/100m | 50.3 | 47.3 | 43 | 41 | 43.8 | 40.8 | 26 | 25 | 100 ± 15 | 101 ± 6 |
| 16 | 8.2 dB/100m | 47.3 | 44.3 | 39 | 36 | 39.7 | 36.7 | 26 | 25 | 100 ± 15 | 101 ± 6 |
| 20 | 9.3 dB/100m | 45.8 | 42.8 | 36.5 | 33.5 | 37.7 | 34.7 | 26 | 25 | 100 ± 15 | 101 ± 6 |
| 25 | 10.4 dB/100m | 44.3 | 41.3 | 33.9 | 30.9 | 35.8 | 32.8 | 25.5 | 24.3 | 100 ± 15 | 101 ± 6 |

| | | | | | | | | | | | |
|-------|--------------|------|------|-----|-----|------|------|------|------|----------|---------|
| 31.25 | 11.7 dB/100m | 42.9 | 39.9 | 31 | 28 | 33.9 | 30.9 | 25 | 23.6 | 100 ± 15 | 101 ± 6 |
| 62.5 | 17.0 dB/100m | 38.4 | 35.4 | 22 | 19 | 27.8 | 24.8 | 23.5 | 21.5 | 100 ± 15 | 101 ± 6 |
| 100 | 22.0 dB/100m | 35.3 | 32.3 | 14 | 11 | 23.8 | 20.8 | 22.5 | 20.1 | 100 ± 15 | |
| 155 | 28.1 dB/100m | 32.5 | 29.5 | 4.4 | 1.4 | 19.9 | 16.9 | 15.8 | | 100 ± 25 | |
| 200 | 32 dB/100m | 30.8 | 27.8 | 4 | 1 | 17.7 | 14.7 | 15 | | 100 ± 25 | |

Voltage

| Voltage Rating |
|----------------|
| 300 V |

Mechanical Characteristics

Temperature

| Operating | Installation | Storage |
|----------------|----------------|----------------|
| -40°C To +75°C | -25°C To +75°C | -40°C To +85°C |

Bend Radius

| Stationary Min. |
|-----------------|
| 1 in (25 mm) |

| | |
|--------------------|----------------|
| Max. Pull Tension: | 40 lbs (18 kg) |
| Bulk Cable Weight: | 22 lbs/1000ft |

Standards and Compliance

| | |
|---------------------------------------|---|
| Environmental Suitability: | Outdoor, Outdoor, Non-Halogenated, Sunlight Resistance, Oil Resistance |
| CPR Compliance: | CPR Euroclass: Fca |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 5e |
| Third Party Performance Verification: | Category 5e |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61156-5 |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Product Notes

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| Notes: | EtherNet IP is a trademark of ControlNet International Ltd. under license by DeviceNet Vendor Association, Inc. Operating Temperature subject to length de-rating. |
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History

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| Update and Revision: | Revision Number: 0.537 Revision Date: 01-20-2023 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 7934A 0101000 | Black | Reel | 1,000 ft | 612825191674 | C |

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