



Product: [7919A](#)

DataTuff® Cat 5e, 4 Pr #24 Sol BC, PO Ins, OS, PVC Jkt, MSHA CMR

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Product Description

Industrial Ethernet Cat 5e, 4 Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, MSHA CMR

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | mining, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
|------------------------|--|

Construction Details

Conductor

| AWG | Stranding | Material | Number of Pairs |
|-----|-----------|------------------|-----------------|
| 24 | Solid | BC - Bare Copper | 4 |

Insulation

| Material | Color Code |
|--------------|--|
| Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |
| Bonded-Pair: | No |

Outer Shield Material

| Type | Material | Coverage | Drainwire Type |
|------|-------------------------------------|----------|------------------|
| Tape | Polyester + Bi-Laminate (Alum+Poly) | 100% | 24 AWG (7x32) TC |

Outer Jacket Material

| Material | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.265 in | No |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance | Nom. Mutual Capacitance | Nom. Velocity of Prop. |
|--------------------|--------------------|----------------------------|-------------------------|------------------------|
| 9.38 Ohm/100m | 3% | 330 pF/ft | 15 pF/ft | 70% |

Delay

| Max. Delay | Max. Delay Skew | Nom. Velocity of Propagation (VP) [%] |
|-------------|-----------------|---------------------------------------|
| 538 ns/100m | 45 ns/100m | 70% |

High Freq

| 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) | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|-----------------------------------|--------------------------------------|----------------------------|
| 1 MHz | 2 dB/100m | 65.3 dB | 62.3 dB | 63 dB | 60 dB | 63.8 dB | 60.8 dB | 20 dB | 23 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 4 MHz | 4.1 dB/100m | 56.3 dB | 53.3 dB | 51 dB | 49 dB | 51.7 dB | 48.7 dB | 23 dB | 23 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 8 MHz | 5.8 dB/100m | 51.8 dB | 48.8 dB | 46 dB | 43 dB | 45.7 dB | 42.7 dB | 24.5 dB | 24.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 10 MHz | 6.5 dB/100m | 50.3 dB | 47.3 dB | 43 dB | 41 dB | 43.8 dB | 40.8 dB | 25 dB | 25 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 16 MHz | 8.2 dB/100m | 47.3 dB | 44.3 dB | 39 dB | 36 dB | 39.7 dB | 36.7 dB | 25 dB | 25 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 20 MHz | 9.3 dB/100m | 45.8 dB | 42.8 dB | 36.5 dB | 33.5 dB | 37.7 dB | 34.7 dB | 25 dB | 25 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |

| | | | | | | | | | | | |
|-----------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|--------------|
| 25 MHz | 10.4 dB/100m | 44.3 dB | 41.3 dB | 33.9 dB | 30.9 dB | 35.8 dB | 32.8 dB | 24.3 dB | 24.3 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 31.25 MHz | 11.7 dB/100m | 42.9 dB | 39.9 dB | 31 dB | 28 dB | 33.9 dB | 30.9 dB | 23.6 dB | 23.6 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 62.5 MHz | 17 dB/100m | 38.4 dB | 35.4 dB | 22 dB | 19 dB | 27.8 dB | 24.8 dB | 21.5 dB | 21.5 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 100 MHz | 22 dB/100m | 35.3 dB | 32.3 dB | 14 dB | 11 dB | 23.8 dB | 20.8 dB | 20.1 dB | 20.1 dB | 100 ± 15 Ohm | 100 ± 15 Ohm |

Voltage

| UL Voltage Rating |
|----------------------------------|
| 300 V (CMR), 300 V (CMX-Outdoor) |

Mechanical Characteristics

Temperature

| UL Rating | Operating | Installation |
|-----------|----------------|----------------|
| 60°C | -40°C To +75°C | -25°C To +75°C |

Bend Radius

| Stationary Min. |
|-----------------|
| 1 in |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 25 lbs |
| Bulk Cable Weight: | 30 lbs/1000ft |

Standards and Compliance

| | |
|---------------------------------|--|
| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance |
| Flammability / Fire Resistance: | UL1666 Riser, FT4, FT4, 1202 Vertical Tray, IEC 60332-1-2 |
| NEC / UL Compliance: | 800, CMR;CMX-Outdoor |
| CEC / C(UL) Compliance: | CMX-Outdoor |
| NEMA Compliance: | NEMA WC-63.1 |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 5e |
| CPR Euroclass: | Eca |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Part Number

Variants

| Item # | Color | Putup Type | Length | UPC |
|----------------|-------|------------|----------|--------------|
| 7919A 01010000 | Black | | | 612825191216 |
| 7919A 0101000 | Black | Reel | 1,000 ft | 612825191209 |
| 7919A 0102000 | Black | Reel | 2,000 ft | 612825191223 |
| 7919A 0105000 | Black | Reel | 5,000 ft | 612825191230 |
| 7919A 0061000 | Blue | Reel | 1,000 ft | 612825191193 |

Product Notes

| | |
|--------|---|
| Notes: | Operating temperatures are subject to length de-rating. Cable passes -40°C Cold Bend per UL 1581. T568A Plug Compatible Part Number: R301603 T568B Plug Compatible Part Number: R301604 |
|--------|---|

History

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| Update and Revision: | Revision Number: 0.338 Revision Date: 07-28-2020 |
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