



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

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

Insulation

| Material | Color Code |
|-----------------|--|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

Outer Shield

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

Outer Jacket

| Material | Nom. Diameter |
|--------------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.265 in (6.73 mm) |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.265 in (6.73 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|--------------------|----------------------------|
| 93.8 Ohm/km | 330 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) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--|--------------------------------------|----------------------------|
| 1 | 2.0 dB/100m | 65.3 | 62.3 | 63 | 60 | 63.8 | 60.8 | 20 | 23 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 4 | 4.1 dB/100m | 56.3 | 53.3 | 51 | 49 | 51.7 | 48.7 | 23 | 23 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 8 | 5.8 dB/100m | 51.8 | 48.8 | 46 | 43 | 45.7 | 42.7 | 24.5 | 24.5 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 10 | 6.5 dB/100m | 50.3 | 47.3 | 43 | 41 | 43.8 | 40.8 | 25 | 25 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 16 | 8.2 dB/100m | 47.3 | 44.3 | 39 | 36 | 39.7 | 36.7 | 25 | 25 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 20 | 9.3 dB/100m | 45.8 | 42.8 | 36.5 | 33.5 | 37.7 | 34.7 | 25 | 25 | 100 ± 15 Ohm | 100 ± 15 Ohm |

| | | | | | | | | | | | |
|-------|--------------|------|------|------|------|------|------|------|------|--------------|--------------|
| 25 | 10.4 dB/100m | 44.3 | 41.3 | 33.9 | 30.9 | 35.8 | 32.8 | 24.3 | 24.3 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 31.25 | 11.7 dB/100m | 42.9 | 39.9 | 31 | 28 | 33.9 | 30.9 | 23.6 | 23.6 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 62.5 | 17.0 dB/100m | 38.4 | 35.4 | 22 | 19 | 27.8 | 24.8 | 21.5 | 21.5 | 100 ± 15 Ohm | 100 ± 15 Ohm |
| 100 | 22.0 dB/100m | 35.3 | 32.3 | 14 | 11 | 23.8 | 20.8 | 20.1 | 20.1 | 100 ± 15 Ohm | 100 ± 15 Ohm |

Voltage

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

Mechanical Characteristics

Temperature

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

Bend Radius

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

| | |
|--------------------|----------------|
| Max. Pull Tension: | 25 lbs (11 kg) |
| Bulk Cable Weight: | 30 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Aerial |
| Flammability / Reaction to Fire: | UL1666 Riser, FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| NEC / UL Compliance: | Article 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 |
| 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 |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Other Standard Compliance(s): | P-07-KA060004-MSHA |

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: 0.533 Revision Date: 09-05-2023 |
|----------------------|--|

Part Numbers

Variants

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

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