

7919A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable



For more Information
please call

1-800-Belden1



General Description:

24 AWG solid bare copper conductors, twisted pairs, polyolefin insulation, overall Beldfoil shield (100% coverage), 24 AWG stranded TC drain wire, industrial grade sunlight- and oil-resistant PVC jacket, rip cord. Sequential marking at two foot intervals

Usage (Overall)

Suitable Applications: Industrial Ethernet Cable, Harsh Environments, 100MHz Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, RS-422, CMX - Outdoor, RJ-45 Compatible, Noisy Environments

Physical Characteristics (Overall)

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4 | 24 | Solid | BC - Bare Copper |

Total Number of Conductors: 8

Insulation

Insulation Material:

| Insulation Material | Wall Thickness (in.) |
|---------------------|----------------------|
| PO - Polyolefin | .010 |

Outer Shield

Outer Shield Material:

| Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|-------------------------|------|------------------------------|--------------|
| Beldfoil® | Tape | Aluminum Foil-Polyester Tape | 100 |

Outer Shield Drain Wire AWG:

| AWG | Stranding | Drain Wire | Conductor Material |
|-----|-----------|--------------------|--------------------|
| 24 | 7x32 | TC - Tinned Copper | |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|---|
| Industrial Grade PVC - Polyvinyl Chloride |

Outer Jacket Ripcord: No

Overall Cable

Overall Nominal Diameter: 0.265 in.

Pair

Pair Color Code Chart:

| Number | Color |
|--------|------------------------------|
| 1 | White/Blue Stripe & Blue |
| 2 | White/Orange Stripe & Orange |
| 3 | White/Green Stripe & Green |
| 4 | White/Brown Stripe & Brown |

Mechanical Characteristics (Overall)

Installation Temperature Range: -25°C To +75°C

Operating Temperature Range: -40°C To +75°C

Bulk Cable Weight: 30 lbs/1000 ft.

Max. Recommended Pulling Tension: 25 lbs.

Min. Bend Radius/Minor Axis: 1 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR, CMX-Outdoor, UL444

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| | |
|---------------------------------------|--|
| CEC/C(UL) Specification: | CMR |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |
| PMSHA Specification: | P-07-KA060004 |
| Other Specification: | NEMA WC-63.1 Category 5e, UL verified to Category 5e |

Applicable Patents:

| |
|--|
| Country |
| www.belden.com/p |

Flame Test

| | |
|------------------|--------------|
| UL Flame Test: | UL1666 Riser |
| CSA Flame Test: | FT4 |
| IEEE Flame Test: | 1202 |

Suitability

| | |
|------------------------|-----|
| Suitability - Outdoor: | Yes |
| Sunlight Resistance: | Yes |
| Oil Resistance: | Yes |

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

| |
|---------------------|
| Capacitance (pF/ft) |
| 15 |

| | |
|---|-----|
| Maximum Capacitance Unbalance (pF/100 m): | 330 |
|---|-----|

Nominal Velocity of Propagation:

| |
|--------|
| VP (%) |
| 70 |

Maximum Delay:

| |
|------------------|
| Delay (ns/100 m) |
| 538 @ 100MHz |

Max. Delay Skew:

| |
|-----------------------|
| Delay Skew (ns/100 m) |
| 45 |

Maximum Conductor DC Resistance:

| |
|------------------------|
| DCR @ 20°C (Ohm/100 m) |
| 9.38 |

Max. Operating Voltage - UL:

| |
|-----------|
| Voltage |
| 300 V RMS |

Maximum DCR Unbalanced:

| |
|--------------------------|
| DCR Unbalance @ 20°C (%) |
| 3 |

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) | Min RL (dB) | Min. SRL (dB) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|---------------|
| 1 | 2.0 | 65.3 | 62.3 | 63.0 | 60.0 | 20.0 | 23 |
| 4 | 4.1 | 56.3 | 53.3 | 51.0 | 49.0 | 23.0 | 23.0 |
| 8 | 5.8 | 51.8 | 48.8 | 46.0 | 43.0 | 24.5 | 24.5 |
| 10 | 6.5 | 50.3 | 47.3 | 43.0 | 41.0 | 25.0 | 25.0 |
| 16 | 8.2 | 47.3 | 44.3 | 39.0 | 36.0 | 25.0 | 25.0 |

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| | | | | | | | |
|-------|------|------|------|------|------|------|------|
| 20 | 9.3 | 45.8 | 42.8 | 36.5 | 33.5 | 25.0 | 25.0 |
| 25 | 10.4 | 44.3 | 41.3 | 33.9 | 30.9 | 24.3 | 24.3 |
| 31.25 | 11.7 | 42.9 | 39.9 | 31.0 | 28.0 | 23.6 | 23.6 |
| 62.5 | 17.0 | 38.4 | 35.4 | 22.0 | 19.0 | 21.5 | 21.5 |
| 100 | 22.0 | 35.3 | 32.3 | 14.0 | 11.0 | 20.1 | 20.1 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 1 | 100 ± 15 | 100 ± 15 | 63.8 | 60.8 |
| 4 | 100 ± 15 | 100 ± 15 | 51.7 | 48.7 |
| 8 | 100 ± 15 | 100 ± 15 | 45.7 | 42.7 |
| 10 | 100 ± 15 | 100 ± 15 | 43.8 | 40.8 |
| 16 | 100 ± 15 | 100 ± 15 | 39.7 | 36.7 |
| 20 | 100 ± 15 | 100 ± 15 | 37.7 | 34.7 |
| 25 | 100 ± 15 | 100 ± 15 | 35.8 | 32.8 |
| 31.25 | 100 ± 15 | 100 ± 15 | 33.9 | 30.9 |
| 62.5 | 100 ± 15 | 100 ± 15 | 27.8 | 24.8 |
| 100 | 100 ± 15 | 100 ± 15 | 23.8 | 20.8 |

Notes (Overall)

Notes: Operating temperatures are subject to length de-rating. Cable passes -40°C Cold Bend per UL 1581.

Notes (Cont'd.): T568A Plug Compatible Part Number: R301603 T568B Plug Compatible Part Number: R301604

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|-----------|-------------|-------------|-------|--------------------|
| 7919A 0061000 | 1,000 FT | 35.000 LB | BLUE, LIGHT | C | 4 PR #24 PP FS PVC |
| 7919A 0101000 | 1,000 FT | 35.000 LB | BLACK | C | 4 PR #24 PP FS PVC |
| 7919A 01010000 | 10,000 FT | 360.000 LB | BLACK | C | 4 PR #24 PP FS PVC |
| 7919A 0102000 | 2,000 FT | 64.000 LB | BLACK | C | 4 PR #24 PP FS PVC |
| 7919A 0105000 | 5,000 FT | 160.000 LB | BLACK | C | 4 PR #24 PP FS PVC |

Notes:
C = CRATE REEL PUT-UP.

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