

## 9938 Multi-Conductor - Low-Capacitance Computer Cable for EIA RS-232/423



For more Information  
please call

1-800-Belden1



### General Description:

24 AWG stranded (7x32) TC conductors, Datalene® insulation, overall Beldfoil® (100% coverage) + TC braid shield (65% coverage), drain wire, PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

| # Conductors | AWG | Stranding | Conductor Material |
|--------------|-----|-----------|--------------------|
| 37           | 24  | 7x32      | TC - Tinned Copper |

Total Number of Conductors: 37

#### Insulation

Insulation Material:

| Insulation Trade Name | Insulation Material     | Wall Thickness (in.) |
|-----------------------|-------------------------|----------------------|
| Datalene®             | FPE - Foam Polyethylene | 0.015                |

#### Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type  | Outer Shield Material        | Coverage (%) |
|---------|-------------------------|-------|------------------------------|--------------|
| 1       | Beldfoil®               | Tape  | Aluminum Foil-Polyester Tape | 100          |
| 2       |                         | Braid | TC - Tinned Copper           | 65           |

Outer Shield Drain Wire AWG:

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

#### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    | Nom. Wall Thickness (in.) |
|--------------------------|---------------------------|
| PVC - Polyvinyl Chloride | 0.045                     |

### Overall Cable

Overall Cabling Color Code Chart:

| Number | Color             |
|--------|-------------------|
| 1      | Black             |
| 2      | White             |
| 3      | Red               |
| 4      | Green             |
| 5      | Orange            |
| 6      | Blue              |
| 7      | White/Black       |
| 8      | Red/Black         |
| 9      | Green/Black       |
| 10     | Orange/Black      |
| 11     | Blue/Black        |
| 12     | Black/White       |
| 13     | Red/White         |
| 14     | Green/White       |
| 15     | Blue/White        |
| 16     | Black/Red         |
| 17     | White/Red         |
| 18     | Orange/Red        |
| 19     | Blue/Red          |
| 20     | Red/Green         |
| 21     | Orange/Green      |
| 22     | Black/White/Red   |
| 23     | White/Black/Red   |
| 24     | Red/Black/White   |
| 25     | Green/Black/White |

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|    |                    |
|----|--------------------|
| 26 | Orange/Black/White |
| 27 | Blue/Black/White   |
| 28 | Black/Red/Green    |
| 29 | White/Red/Green    |
| 30 | Red/Black/Green    |
| 31 | Green/Black/Orange |
| 32 | Orange/Black/Green |
| 33 | Blue/White/Orange  |
| 34 | Black/White/Orange |
| 35 | White/Red/Orange   |
| 36 | Orange/White/Blue  |
| 37 | White/Red/Blue     |

Overall Nominal Diameter: 0.476 in.

**Mechanical Characteristics (Overall)**

|                              |                          |
|------------------------------|--------------------------|
| Operating Temperature Range: | -30°C To +80°C           |
| UL Temperature Rating:       | 80°C (UL AWM Style 2919) |
| Bulk Cable Weight:           | 129 lbs/1000 ft.         |
| Min. Bend Radius/Minor Axis: | 5 in.                    |

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

|                                       |                           |
|---------------------------------------|---------------------------|
| NEC/(UL) Specification:               | CM                        |
| CEC/C(UL) Specification:              | CM                        |
| AWM Specification:                    | UL Style 2919 (30 V 80°C) |
| EU Directive 2011/65/EU (ROHS II):    | Yes                       |
| EU CE Mark:                           | 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                       |
| MIL Order #39 (China RoHS):           | Yes                       |

**Flame Test**

|                |                   |
|----------------|-------------------|
| UL Flame Test: | UL1685 UL Loading |
|----------------|-------------------|

**Electrical Characteristics (Overall)****Nom. Capacitance Conductor to Conductor:**

Capacitance (pF/ft)

12

**Nom. Capacitance Cond. to Other Conductor & Shield:**

Capacitance (pF/ft)

22

**Nominal Velocity of Propagation:**

VP (%)

78

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

24

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

2.37

**Max. Operating Voltage - UL:**

| Voltage   | Description       |
|-----------|-------------------|
| 30 V RMS  | UL AWM Style 2919 |
| 300 V RMS | CM                |

**Max. Recommended Current:**

**9938 Multi-Conductor - Low-Capacitance Computer Cable for EIA RS-232/423****Current**

1.5 Amps per conductor @ 25°C

**Notes (Overall)**

**Notes:** Datalene® insulation features include a low dielectric constant and a low dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

**Put Ups and Colors:**

| Item #       | Putup    | Ship Weight | Color  | Notes | Item Desc           |
|--------------|----------|-------------|--------|-------|---------------------|
| 9938 060100  | 100 FT   | 14.600 LB   | CHROME | C     | 37 #24 FHDPE SH PVC |
| 9938 0601000 | 1,000 FT | 136.000 LB  | CHROME | C     | 37 #24 FHDPE SH PVC |
| 9938 060500  | 500 FT   | 71.500 LB   | CHROME | C     | 37 #24 FHDPE SH PVC |

**Notes:**

C = CRATE REEL PUT-UP.

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