

## 8107 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422 Application



For more Information  
please call

1-800-Belden1



### General Description:

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

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

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

Total Number of Conductors: 14

#### Insulation

##### Insulation Material:

| Insulation Trade Name | Insulation Material     | Wall Thickness (mm) |
|-----------------------|-------------------------|---------------------|
| Datalene®             | FPE - Foam Polyethylene | 0.330               |

#### Outer Shield

##### Outer Shield Material:

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

##### Outer Shield Drain Wire AWG:

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

#### Outer Jacket

##### Outer Jacket Material:

| Outer Jacket Material    | Nom. Wall Thickness (mm) |
|--------------------------|--------------------------|
| PVC - Polyvinyl Chloride | 0.889                    |

### Overall Cable

Overall Nominal Diameter: 8.661 mm

#### Pair

##### Pair Color Code Chart:

| Number | Color                       |
|--------|-----------------------------|
| 1      | White/Blue & Blue/White     |
| 2      | White/Orange & Orange/White |
| 3      | White/Green & Green/White   |
| 4      | White/Brown & Brown/White   |
| 5      | White/Gray & Gray/White     |
| 6      | Red/Blue & Blue/Red         |
| 7      | Red/Orange & Orange/Red     |

### Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +80°C

UL Temperature Rating: 80°C (UL AWM Style 2919)

Bulk Cable Weight: 87.804 Kg/Km

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Max. Recommended Pulling Tension: 366.977 N

Min. Bend Radius/Minor Axis: 88.900 mm

### 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                       |
| MII Order #39 (China RoHS):           | Yes                       |

#### Flame Test

UL Flame Test: UL1685 UL Loading

#### Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 88107

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)

100

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)

41.0125

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

Capacitance (pF/m)

72.182

#### Nominal Velocity of Propagation:

VP (%)

78

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

78.744

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

11.4835

#### Max. Operating Voltage - UL:

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

#### Max. Recommended Current:

Current

1.5 Amps per conductor @ 25°C

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### Notes (Overall)

**Notes:** Datalene® insulation features include low dielectric constant and a 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             |
|--------------|--------|-------------|--------|-------|-----------------------|
| 8107 060100  | 30 MT  | 3.084 KG    | CHROME |       | 7 PR #24 FHDPE SH PVC |
| 8107 0601000 | 305 MT | 28.576 KG   | CHROME | C     | 7 PR #24 FHDPE SH PVC |
| 8107 060500  | 152 MT | 14.969 KG   | CHROME | C     | 7 PR #24 FHDPE SH PVC |

**Notes:**  
C = CRATE REEL PUT-UP.

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