

## 8164 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422 & Digital



For more Information  
please call

1-800-Belden1



### General Description:

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

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4       | 24  | 7x32      | TC - Tinned Copper |

Total Number of Conductors: 8

#### Insulation

##### Insulation Material:

| Insulation Trade Name | Insulation Material     | Wall Thickness (mm) |
|-----------------------|-------------------------|---------------------|
| Datalene®             | FPE - Foam Polyethylene | 0.483               |

#### Inner Shield

##### Inner Shield Material:

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

##### Inner Shield Drain Wire AWG:

| AWG |
|-----|
| 24  |

Inner Shield Drain Wire Stranding: 7x32

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

#### 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 Jacket

##### Outer Jacket Material:

| Outer Jacket Material    | Nom. Wall Thickness (mm) |
|--------------------------|--------------------------|
| PVC - Polyvinyl Chloride | 1.219                    |

#### Overall Cable

Overall Nominal Diameter: 9.855 mm

#### Pair

##### Pair Color Code Chart:

| Number | Color         |
|--------|---------------|
| 1      | Black & Red   |
| 2      | Black & White |
| 3      | Black & Green |
| 4      | Black & Blue  |

### Mechanical Characteristics (Overall)

METRIC MEASUREMENT VERSION

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|                                   |                |
|-----------------------------------|----------------|
| Operating Temperature Range:      | -40°C To +60°C |
| UL Temperature Rating:            | 60°C           |
| Bulk Cable Weight:                | 107.150 Kg/Km  |
| Max. Recommended Pulling Tension: | 493.750 N      |
| Min. Bend Radius/Minor Axis:      | 101.600 mm     |

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|                                       |                            |
|---------------------------------------|----------------------------|
| NEC/(UL) Specification:               | CM                         |
| CEC/C(UL) Specification:              | CM                         |
| AWM Specification:                    | UL Style 2493 (300 V 60°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                        |

#### Plenum/Non-Plenum

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

### 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)  
10.4992

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 59.058 Ohm/km

#### Max. Operating Voltage - UL:

Voltage  
300 V RMS

#### Max. Recommended Current:

Current

## 8164 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422 & Digital

2.5 Amps per conductor @ 25°C

### 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                |
|--------------|--------|-------------|--------|-------|--------------------------|
| 8164 060100  | 30 MT  | 3.719 KG    | CHROME |       | 4 FS PR #24 FHDPE SH PVC |
| 8164 0601000 | 305 MT | 35.834 KG   | CHROME | C     | 4 FS PR #24 FHDPE SH PVC |
| 8164 060500  | 152 MT | 17.917 KG   | CHROME | C     | 4 FS PR #24 FHDPE SH PVC |

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

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