

## 8166 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422 &amp; Digital



For more Information  
please call

1-800-Belden1

**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 |
|---------|-----|-----------|--------------------|
| 6       | 24  | 7x32      | TC - Tinned Copper |

**Insulation**

Insulation Material:

| Insulation Trade Name | Insulation Material     |
|-----------------------|-------------------------|
| Datalene®             | FPE - Foam Polyethylene |

**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    |
|--------------------------|
| PVC - Polyvinyl Chloride |

**Overall Cable**

Overall Nominal Diameter: 0.446 in.

**Pair**

Pair Color Code Chart:

| Number | Color          |
|--------|----------------|
| 1      | Black & Red    |
| 2      | Black & White  |
| 3      | Black & Green  |
| 4      | Black & Blue   |
| 5      | Black & Yellow |
| 6      | Black & Brown  |

Pair Lay Length & Direction:

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| Lay Length (in.) | Twists/ft. (twist/ft) |
|------------------|-----------------------|
| 1.500            | 8.000                 |

**Mechanical Characteristics (Overall)**

|                                        |                          |
|----------------------------------------|--------------------------|
| Operating Temperature Range:           | -40°C To +60°C           |
| Non-UL Temperature Rating:             | 60°C (UL AWM Style 2493) |
| Bulk Cable Weight:                     | 110 lbs/1000 ft.         |
| Max. Recommended Pulling Tension:      | 151 lbs.                 |
| Min. Bend Radius (Install)/Minor Axis: | 4.500 in.                |

**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 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/ft) |
|---------------------|
| 12.5                |

**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) |
|--------------------------|
| 24.0                     |

**Nominal Outer Shield DC Resistance:**

| DCR @ 20°C (Ohm/1000 ft) |
|--------------------------|
| 2.8                      |

|                                                     |                |
|-----------------------------------------------------|----------------|
| Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: | 18 Ohm/1000 ft |
|-----------------------------------------------------|----------------|

**Max. Operating Voltage - UL:**

| Voltage |
|---------|
|---------|

**8166 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422 & Digital**

300 V RMS

**Max. Recommended Current:****Current**

1.6 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.

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

| Item #       | Putup    | Ship Weight | Color  | Notes | Item Desc                |
|--------------|----------|-------------|--------|-------|--------------------------|
| 8166 060100  | 100 FT   | 9.000 LB    | CHROME | C     | 6 FS PR #24 FHDPE SH PVC |
| 8166 0601000 | 1,000 FT | 99.000 LB   | CHROME | C     | 6 FS PR #24 FHDPE SH PVC |
| 8166 060500  | 500 FT   | 50.000 LB   | CHROME | C     | 6 FS PR #24 FHDPE SH PVC |

**Notes:**

C = CRATE REEL PUT-UP.

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