

## 8168 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 |
|---------|-----|-----------|--------------------|
| 8       | 24  | 7x32      | TC - Tinned Copper |

Total Number of Conductors: 16

#### Insulation

Insulation Material:

| Insulation Trade Name | Insulation Material     | Wall Thickness (in.) |
|-----------------------|-------------------------|----------------------|
| Datalene®             | FPE - Foam Polyethylene | 0.019                |

#### 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: Stranded

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 (in.) |
|--------------------------|---------------------------|
| PVC - Polyvinyl Chloride | 0.048                     |

#### Overall Cable

Overall Nominal Diameter: 0.479 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  |
| 7      | Black & Orange |
| 8      | Red & White    |

### Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +60°C

UL Temperature Rating: 60°C (UL AWM Style 2493)

Bulk Cable Weight: 108 lbs/1000 ft.

Max. Recommended Pulling Tension: 184 lbs.

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|                              |       |
|------------------------------|-------|
| 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 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                        |

#### Flame Test

|                |                      |
|----------------|----------------------|
| UL Flame Test: | UL1581 Vertical Tray |
|----------------|----------------------|

#### 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

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

3

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

#### Max. Operating Voltage - UL:

Voltage

300 V RMS

#### Max. Recommended Current:

Current

1.1 Amps per conductor @ 25°C

### Put Ups and Colors:

| Item #       | Putup    | Ship Weight | Color  | Notes | Item Desc                |
|--------------|----------|-------------|--------|-------|--------------------------|
| 8168 060100  | 100 FT   | 12.500 LB   | CHROME | C     | 8 FS PR #24 FHDPE SH PVC |
| 8168 0601000 | 1,000 FT | 115.000 LB  | CHROME | C     | 8 FS PR #24 FHDPE SH PVC |
| 8168 060500  | 500 FT   | 61.500 LB   | CHROME | C     | 8 FS PR #24 FHDPE SH PVC |

#### Notes:

C = CRATE REEL PUT-UP.

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