

## 8138FO Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/485



For more Information  
please call

1-800-Belden1

**Description:**

28 AWG stranded (7x36) TC conductors, Datalene® insulation, twisted pairs, overall Beldfoil shield (100% coverage), 28 AWG stranded TC drain wire, PVC jacket.

**Physical Characteristics (Overall)****Conductor****AWG:**

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 8       | 28  | 7x36      | TC - Tinned Copper |

Total Number of Conductors: 16

**Insulation****Insulation Material:**

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

**Outer Shield****Outer Shield Material:**

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

**Outer Shield Drain Wire AWG:**

| AWG | Stranding | Drain Wire Conductor Material |
|-----|-----------|-------------------------------|
| 28  | 7x36      | TC - Tinned Copper            |

**Outer Jacket****Outer Jacket Material:**

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

**Overall Cable**

Overall Nominal Diameter: 7.874 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     |
| 8      | Red/Green & Green/Red       |

**Pair Lay Length & Direction:**

| Lay Length (mm) | Twists (twist/m) |
|-----------------|------------------|
| 22.352          | 44.622           |

**Mechanical Characteristics (Overall)**

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

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|                              |                          |
|------------------------------|--------------------------|
| Non-UL Temperature Rating:   | 80°C (UL AWM Style 2919) |
| Bulk Cable Weight:           | 86.316 Kg/Km             |
| Min. Bend Radius/Minor Axis: | 82.550 mm                |

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

|                                       |                           |
|---------------------------------------|---------------------------|
| NEC/(UL) Specification:               | CL2                       |
| AWM Specification:                    | UL Style 2919 (30 V 80°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                       |

## Flame Test

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

## Plenum/Non-Plenum

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

## Electrical Characteristics (Overall)

## Nom. Characteristic Impedance:

Impedance (Ohm)

120

## Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)

36.091

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

Capacitance (pF/m)

65.62

## Nominal Velocity of Propagation:

VP (%)

78

## Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

213.265

## Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

58.0737

## Max. Operating Voltage - UL:

Voltage

30 V RMS (UL AWM Style 2919); 150 V RMS

## Max. Recommended Current:

Current

.7 Amps per conductor @ 25°C

## Notes (Overall)

## METRIC MEASUREMENT VERSION

**8138FO Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/485**

**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             |
|----------------|--------|-------------|--------|-------|-----------------------|
| 8138FO 0601000 | 305 MT | 19.051 KG   | CHROME | C     | 8 PR #28 FHDPE SH PVC |

**Notes:**

C = CRATE REEL PUT-UP.

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