




**Product:** [8138FO](#) 

RS232/485 Low Cap, #28-8pr, FPO, O/A Foil, PVC Jkt, CL2, 120Ω

## Product Description

Computer EIA RS-232/485 Cable, 28 AWG stranded (7x36) tinned copper conductors, Datalene® insulation, twisted pairs, overall Beldfoil® shield (100% coverage), 28 AWG stranded tinned copper drain wire, PVC jacket.

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | rs-232 extended distance applications; rs-423 applications; computer communications; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, ...); line level audio; panel wiring |
|------------------------|--|

### Physical Characteristics (Overall)

#### Conductor

| AWG | Stranding | Material           | No. of Pairs |
|-----|-----------|--------------------|--------------|
| 28  | 7x36      | TC - Tinned Copper | 8            |

Conductor Count: 16

#### Insulation

| Material                 | Material Trade Name | Nominal Wall Thickness |
|--------------------------|---------------------|------------------------|
| PE - Polyethylene (Foam) | Datalene®           | 0.015 in               |

#### Color 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       |

#### Outer Shield Material

| Type | Material                | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|------|-------------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil® (Z-Fold®) | 100%         | TC - Tinned Copper | 28            | 7x36                         |

#### Outer Jacket Material

| Material                 | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.31 in          | 0.04 in                |

### Electrical Characteristics

#### Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 65 Ohm/1000ft         | 17.7 Ohm/1000ft          |

#### Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 11 pF/ft                                | 20 pF/ft  |

#### Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 120 Ohm                          |

#### Delay

| Max. Delay Skew |
|-----------------|
| 78 ns/100m      |

#### Current

| Max. Recommended Current [A]   |
|--------------------------------|
| 0.7 Amps per Conductor at 25°C |

#### Voltage

| UL Description    | UL Voltage Rating            |
|-------------------|------------------------------|
| UL AWM Style 2919 | 30 V RMS (UL AWM Style 2919) |
| CL2               | 150 V RMS (CL2)              |

#### Temperature Range

|                       |                |
|-----------------------|----------------|
| Operating Temp Range: | -30°C To +80°C |
|-----------------------|----------------|

#### Mechanical Characteristics

|                             |               |
|-----------------------------|---------------|
| Bulk Cable Weight:          | 37 lbs/1000ft |
| Min Bend Radius/Minor Axis: | 3.25 in       |

#### Standards

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

#### Applicable Environmental and Other Programs

|                                       |                               |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV):        | Yes                           |
| EU Directive 2003/96/EC (BFR):        | Yes                           |
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01                    |
| MII Order #39 (China RoHS):           | Yes                           |

#### Flammability, LSOH, Toxicity Testing

|                    |                              |
|--------------------|------------------------------|
| UL Flammability:   | UL1685 UL Loading            |
| UL voltage rating: | 30 V RMS (UL AWM Style 2919) |

#### Plenum/Non-Plenum

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

#### Part Number

##### Variants

| Item #         | Color  | UPC          |
|----------------|--------|--------------|
| 8138FO 0601000 | Chrome | 612825195436 |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

#### Product Notes

|        |  |
|--------|--|
| 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. |
|--------|--|

#### History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.259 Revision Date: 09-30-2020 |
|----------------------|--|

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