



**Product:** [8148](#)

RS232/485 Low Cap, #28-18pr, FPE, O/A Foil+Braid, PVC Jkt, CL2, 120Ω

Product Description

Computer EIA RS-232/485 Cable, 18-Pair, 28 AWG stranded (7x36) tinned copper conductors, Datalene® insulation, overall Beldfoil® (100% coverage) + tinned copper braid shield (65% coverage), 28 AWG stranded tinned copper drain wire, PVC jacket.

Technical Specifications

Product Overview

|                        |                                                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | RS-232 extended distance applications; RS-485 applications; computer communications; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, ...); line level audio; panel wiring |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Construction Details

Conductor

| Element | No. of Elements | Size   | Stranding | Material           |
|---------|-----------------|--------|-----------|--------------------|
| Pair(s) | 18              | 28 AWG | 7x36      | TC - Tinned Copper |

Insulation

| Element | Material                 | Nom. Thickness       | Color Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------|--------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pair(s) | PE - Polyethylene (Foam) | 0.0145 in (0.368 mm) | White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe, White/Green Stripe & Green/White Stripe, White/Brown Stripe & Brown/White Stripe, White/Gray Stripe & Gray/White Stripe, Red/Blue Stripe & Blue/Red Stripe, Red/Orange Stripe & Orange/Red Stripe, Red/Green Stripe & Green/Red Stripe, Red/Brown Stripe & Brown/Red Stripe, Red/Gray Stripe & Gray/Red Stripe, Black/Blue Stripe & Blue/Black Stripe, Black/Orange Stripe & Orange/Black Stripe, Black/Green Stripe & Green/Black Stripe, Black/Brown Stripe & Brown/Black Stripe, Black/Gray Stripe & Gray/Black Stripe, Yellow/Blue Stripe & Blue/Yellow Stripe, Yellow/Orange Stripe & Orange/Yellow Stripe, Yellow/Green Stripe & Green/Yellow Stripe |

Outer Shield

| Shield Type | Material                | Coverage | Drainwire Type   |
|-------------|-------------------------|----------|------------------|
| Tape        | Bi-Laminate (Alum+Poly) | 100%     | 28 AWG (7x36) TC |
| Braid       | Tinned Copper (TC)      | 65%      |                  |

Outer Jacket

| Material                 | Nom. Thickness    | Nom. Diameter      |
|--------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.045 in (1.1 mm) | 0.467 in (11.9 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.467 in (11.9 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR         | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedence | Nom. Velocity of Prop. | Max. Current                   |
|---------|----------------------------|-------------------------------|-------------------------------------------------|-------------------------------|------------------------|--------------------------------|
| Pair(s) | 65 Ohm/1000ft (210 Ohm/km) | 11 pF/ft (36 pF/m)            | 20 pF/ft (66 pF/m)                              | 120 Ohm                       | 78%                    | 0.6 Amps per Conductor at 25°C |

Voltage

| UL Voltage Rating  |
|--------------------|
| 30 V (UL AWM 2919) |

Mechanical Characteristics

Temperature

| UL Temperature     | Operating      |
|--------------------|----------------|
| 80°C (UL AWM 2919) | -30°C to +80°C |

|                    |                           |
|--------------------|---------------------------|
| Bulk Cable Weight: | 85 lbs/1000ft (130 kg/km) |
|--------------------|---------------------------|

Standards and Compliance

|                                  |                                                                              |
|----------------------------------|------------------------------------------------------------------------------|
| Flammability / Reaction to Fire: | UL1685 UL Loading, IEC 60332-1-2                                             |
| CPR Compliance:                  | CPR Euroclass: Eca                                                           |
| NEC / UL Compliance:             | CL2                                                                          |
| AWM Compliance:                  | AWM 2919                                                                     |
| European Directive Compliance:   | EU CE Mark, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance:        | UKCA Mark                                                                    |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                                              |

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: 0.330 Revision Date: 12-22-2023 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #       | Color  | Putup Type | Length   | UPC          | Footnote |
|--------------|--------|------------|----------|--------------|----------|
| 8148 060500  | Chrome | Reel       | 500 ft   | 612825195498 | C        |
| 8148 0601000 | Chrome | Reel       | 1,000 ft | 612825195481 | C        |

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