

# Product: 8166

RS232/422 Low Cap, #24-6pr, FPO, Indiv.& O/A Foils+Braid, PVC Jkt, CM, 100Ω

## Product Description

Computer EIA RS-232/422, Digital Audio Cable, 24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, 6 twisted pairs individually Beldfoil® shielded + overall 100% Beldfoil® + tinned copper braid shield (65% coverage), drain wire, PVC jacket.

## Technical Specifications

### Product Overview

| | |
|---|---|
| Suitable Applications: | RS-232 Extended Distance & RS-422 Applications; Computer Communications; Low Voltage Analog signals (4-20ma, 0-10v, ...); Low Voltage Digital Control (24v, …); Digital Audio; Panel Wiring |

### Construction Details

**Conductor**

| Element | No. of Elements | Size | Stranding | Material |
|---|---|---|---|---|
| Pair(s) | 6 | 24 AWG | 7x32 | TC - Tinned Copper |

**Insulation**

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code |
|---|---|---|---|---|
| Pair(s) | PE - Polyethylene (Foam) | 0.019 in (0.48 mm) | 0.061 in (1.5 mm) | Black & Red, Black & White, Black & Green, Black & Blue, Black & Yellow, Black & Brown |

**Inner Shield**

| Element | Shield Type | Material | Coverage | Drainwire Type | Notes |
|---|---|---|---|---|---|
| Pair(s) | Tape | Bi-Laminate (Alum+Poly) | 100% | 24 AWG (7x32) TC | each pair, Z-Fold® Foil-in |

**Outer Shield**

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

**Outer Jacket**

| Material | Nom. Thickness | Nom. Diameter | Ripcord |
|---|---|---|---|
| PVC - Polyvinyl Chloride | 0.048 in (1.2 mm) | 0.446 in (11.3 mm) | Yes |

| | |
|---|---|
| Overall Cable Diameter (Nominal): | 0.446 in (11.3 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) | 24 Ohm/1000ft | 12.5 pF/ft (41.0 pF/m) | 22 pF/ft (72 pF/m) | 100 Ohm | 78% | 1.6 Amps per Conductor at 25ºC |

**Voltage**

| UL Voltage Rating |
|---|
| 300 V (CM), 300 V (UL AWM 2493) |

### Mechanical Characteristics

**Temperature**

| UL Temperature | Operating |
|---|---|
| 60°C | -40°C to +60°C |

**Bend Radius**

| Stationary Min. | Installation Min. |
|---|---|
| 4.5 in (110 mm) | 4.5 in (110 mm) |

| | |
|---|---|
| Max. Pull Tension: | 144 lbs (65.3 kg) |
| Bulk Cable Weight: | 90 lbs/1000ft |

## Standards and Compliance

| | |
|---|---|
| Environmental Suitability: | Indoor (Not Riser or Plenum), Indoor |
| Flammability / Reaction to Fire: | UL 1685 FT4 Loading, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| NEC / UL Compliance: | Article 800, CM |
| AWM Compliance: | AWM 2493 |
| CEC / C(UL) Compliance: | CM |
| 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

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|---|---|
| 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

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|---|---|
| Update and Revision: | Revision Number: 0.491 Revision Date: 12-22-2023 |

## Part Numbers

**Variants**

| Item # | Color | Putup Type | Length | UPC/EAN | Footnote |
|---|---|---|---|---|---|
| 8166.0030 | Chrome | Reel | 30 m | 8719605018038 | |
| 8166 060100 | Chrome | Reel | 100 ft | 612825195696 | C |
| 8166.00152 | Chrome | Reel | 152 m | 8719605018021 | |
| 8166.00305 | Chrome | Reel | 305 m | 8719605018045 | |
| 8166 060500 | Chrome | Reel | 500 ft | 612825195719 | C |
| 8166 0601000 | Chrome | Reel | 1,000 ft | 612825195702 | C |

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