



Product: [8165](#)

RS232/422 Low Cap, #24-5pr, 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, 5 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 |
|------------------------|---|

Physical Characteristics (Overall)

Conductor

| Element | AWG | Stranding | Material | No. of Pairs |
|---------|-----|-----------|--------------------|--------------|
| Pair(s) | 24 | 7x32 | TC - Tinned Copper | 5 |

Conductor Count: 10

Insulation

| Element | Material | Material Trade Name | Nominal Wall Thickness |
|---------|--------------------------|---------------------|------------------------|
| Pair(s) | PE - Polyethylene (Foam) | Datalene® | 0.0185 in |

Color Chart

| Number | Color |
|--------|----------------|
| 1 | Black & Red |
| 2 | Black & White |
| 3 | Black & Green |
| 4 | Black & Blue |
| 5 | Black & Yellow |

Inner Shield Material

| Element | Type | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|---------|------|-------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Pair(s) | Tape | Alum / Poly | Beldfoil® (Z-Fold®) | 100 % | TC - Tinned Copper | 24 | 7x32 |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] |
|-------|-------|--------------------|---------------------|--------------|
| Tape | 1 | Alum / Poly | Beldfoil® | 100 % |
| Braid | 2 | TC - Tinned Copper | | 65 % |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.413 in | 0.048 in |

Electrical Characteristics

Conductor DCR

| Individual Pair Nominal Shield DCR | Nominal Conductor DCR | Nominal Outer Shield DCR |
|------------------------------------|-----------------------|--------------------------|
| 18 Ohm/1000ft | 24 Ohm/1000ft | 3.4 Ohm/1000ft |

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 12.5 pF/ft | 22 pF/ft |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 100 Ohm |

Delay

| Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|-----------------|--|
| 78 ns/100m | 78 % |

Current

| Max. Recommended Current [A] |
|---------------------------------|
| 1.6 Amps per conductor @ 25°C A |

Voltage

| UL Description | UL Voltage Rating |
|----------------|-------------------|
| CM | 300 V |
| UL AWM 2493 | 300 V |

Temperature Range

| | |
|-----------------------|--------------------|
| UL Temp Rating: | 60°C (UL AWM 2493) |
| Operating Temp Range: | -40°C to +60°C |

Mechanical Characteristics

| | |
|----------------------------------|---------------|
| Bulk Cable Weight: | 81 lbs/1000ft |
| Max Recommended Pulling Tension: | 127 lbs |
| Min Bend Radius/Minor Axis: | 4 in |

Standards

| | |
|--------------------------|------|
| NEC/(UL) Specification: | CM |
| CEC/C(UL) Specification: | CM |
| UL AWM Style: | 2493 |
| CPR Euroclass: | Eca |

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, LS0H, Toxicity Testing

| | |
|-----------------------|----------------------|
| UL Flammability: | UL1581 Vertical Tray |
| ISO/IEC Flammability: | IEC 60332-1-2 |
| UL voltage rating: | 300 V |

Plenum/Non-Plenum

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

Part Number

Variants

| Item # | Color | Putup Type | Length | UPC/EAN |
|-------------|--------|------------|--------|---------------|
| 8165.0030 | Chrome | Reel | 30 m | 8719605018007 |
| 8165 060100 | Chrome | Reel | 100 ft | 612825195665 |

| | | | | |
|--------------|--------|------|----------|---------------|
| 8165.00152 | Chrome | Reel | 152 m | 8719605017994 |
| 8165.00305 | Chrome | Reel | 305 m | 8719605018014 |
| 8165 060500 | Chrome | Reel | 500 ft | 612825195689 |
| 8165 0601000 | Chrome | Reel | 1,000 ft | 612825195672 |

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: 0.263 Revision Date: 05-19-2020

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