



**Product:** [8103](#)

RS-232/422 Low Cap, #24-3pr, FPO, O/A Foil+Braid, PVC Jkt, CM, 100Ω

## Product Description

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

## Technical Specifications

### Product Overview

Suitable Applications:	rs-232 extended distance applications; rs-422 applications; computer communications; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, ...); line level audio; panel wiring
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### Physical Characteristics (Overall)

#### Conductor

Element	AWG	Stranding	Material	No. of Pairs
Pair(s)	24	7x32	TC - Tinned Copper	3

Conductor Count:	6
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#### Insulation

Element	Material	Material Trade Name	Nominal Wall Thickness
Pair(s)	PE - Polyethylene (Foam)	Datalene®	0.013 in

#### Color Chart

Number	Color
1	White/Blue & Blue/White
2	White/Orange & Orange/White
3	White/Green & Green/White

#### Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Alum / Poly	Beldfoil®	100 %	TC - Tinned Copper	24	7x32
Braid	2	TC - Tinned Copper		65 %			

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.283 in	0.035 in

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
24 Ohm/1000ft	3.8 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

**High Frequency (Nominal/Typical)****Nom. Insertion Loss**

7 dB/100m

**Delay****Max. Delay Skew** | **Nominal Velocity of Propagation (VP) [%]**

78 ns/100m

78 %

**Current****Max. Recommended Current [A]**

1.5 Amps per conductor @ 25°C A

**Voltage****UL Voltage Rating**

30 V RMS (UL AWM Style 2919)

300 V RMS

**Temperature Range**

UL Temp Rating: 80°C (UL AWM Style 2919)

Operating Temp Range: -30°C To +80°C

**Mechanical Characteristics**

Bulk Cable Weight: 39 lbs/1000ft

Max Recommended Pulling Tension: 38.5 lbs

Min Bend Radius/Minor Axis: 3 in

**Standards**

NEC/(UL) Specification: CM

CEC/C(UL) Specification: CM

UL AWM Style: 2919 (30 V 80°C)

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, LSOH, Toxicity Testing**

UL Flammability: UL1685 UL Loading

ISO/IEC Flammability: IEC 60332-1-2

UL voltage rating: 30 V RMS (UL AWM Style 2919)

**Plenum/Non-Plenum**

Plenum (Y/N): No

Plenum Number: 88103

**Part Number****Variants**

Item #	Color	Putup Type	Length	UPC/EAN
8103.0030	Chrome	Reel	30 m	8719605017727
8103 060100	Chrome	Reel	100 ft	612825194798

8103.01152	Chrome	Reel	152 m	8719605017741
8103.00305	Chrome	Reel	305 m	8719605017734
8103 060500	Chrome	Reel	500 ft	612825194828
8103 0601000	Chrome	Reel	1,000 ft	612825194804
8103.013048	Chrome	Reel	3,048 m	8719605017758
8103 0605000	Chrome	Reel	5,000 ft	612825194835
8103 06010000	Chrome	Reel	10,000 ft	612825194811

Footnote:	C - CRATE REEL PUT-UP.
Footnote:	Y - FINAL PUT-UP LENGTH MAY VAR -10% TO +20% FROM LENGTH SHOWN. MAY CONTAIN 2 PIECES. MINIMUM LENGTH OF ANY ONE PIECE IS 1500'.

## 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.
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## History

Update and Revision:	Revision Number: 0.312 Revision Date: 05-11-2020
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