

## 8103 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422

For more Information  
please call

1-800-Belden1



### General Description:

24 AWG stranded (7x32) TC conductors, Datalene® insulation, twisted pairs, overall Beldfoil® (100% coverage) + TC braid shield (65% coverage), 24 AWG stranded TC drain wire, PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
3	24	7x32	TC - Tinned Copper

Total Number of Conductors: 6

#### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (in.)
Datalene®	FPE - Foam Polyethylene	0.013

#### Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape w/Shorting Fold	100
2		Braid	TC - Tinned Copper	65

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.035

#### Overall Cable

Overall Nominal Diameter: 0.283 in.

#### Pair

Pair Color Code Chart:

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

### Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +80°C

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

Bulk Cable Weight: 39 lbs/1000 ft.

Max. Recommended Pulling Tension: 38.500 lbs.

Min. Bend Radius/Minor Axis: 3 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CM

CEC/C(UL) Specification: CM

AWM Specification: UL Style 2919 (30 V 80°C)

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

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EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

### Flame Test

UL Flame Test:	UL1685 UL Loading
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### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	88103

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)
100

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
12.5

#### Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
22

#### Nominal Velocity of Propagation:

VP (%)
78

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
24

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
3.8

#### Max. Operating Voltage - UL:

Voltage
30 V RMS (UL AWM Style 2919)
300 V RMS

#### Max. Recommended Current:

Current
1.5 Amps per conductor @ 25°C

### Notes (Overall)

**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.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8103 060100	100 FT	4.600 LB	CHROME		3 PR #24 FHDPE SH PVC
8103 0601000	1,000 FT	42.000 LB	CHROME	C	3 PR #24 FHDPE SH PVC
8103 06010000	10,000 FT	430.000 LB	CHROME	C Y	3 PR #24 FHDPE SH PVC
8103 060500	500 FT	21.000 LB	CHROME	C	3 PR #24 FHDPE SH PVC
8103 0605000	5,000 FT	210.000 LB	CHROME	C	3 PR #24 FHDPE SH PVC

#### Notes:

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

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