# **Detailed Specifications & Technical Data**

### **METRIC MEASUREMENT VERSION**





## 8102 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

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## **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

# Pairs	AWG	Stranding	<b>Conductor Material</b>
2	24	7x32	TC - Tinned Copper

Total Number of Conductors:

#### Insulation

#### **Insulation Material:**

Insulation Trade Name	Insulation Material	Wall Thickness (mm)
Datalene®	FPE - Foam Polyethylene	0.330

#### **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 PVC - Polyvinyl Chloride	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	0.889

#### **Overall Cable**

Overall Nominal Diameter: 6.858 mm

#### Pair

#### Pair Color Code Chart:

Nu	mber	Color
1		White/Blue & Blue/White
2		White/Orange & Orange/White

## **Mechanical Characteristics (Overall)**

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Operating Temperature Range:	-30°C To +80°C		
UL Temperature Rating:	80°C (UL AWM Style 2919)		
Bulk Cable Weight:	50.599 Kg/Km		
Max. Recommended Pulling Tension:	122.326 N		
Min. Bend Radius/Minor Axis:	69.850 mm		

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## 8102 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422

App	pplicable Specifications and Agency Compliance (Overall)					
Ap	plicable Standards & Environmental Prograr	ns				
	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				
	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				
Fla	me Test					
	UL Flame Test:	UL1685 UL Loading				
Ple	num/Non-Plenum					
	Plenum (Y/N):	No				
	Plenum Number:	88102				

# **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance	(Ohm)
100	

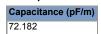
Nom. Inductance:



Nom. Capacitance Conductor to Conductor:



Nom. Capacitance Cond. to Other Conductor & Shield:



Nominal Velocity of Propagation:



Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 78.744

**Nominal Outer Shield DC Resistance:** 

DCR @ 20°C (Ohm/km) 15.0926

Max. Operating Voltage - UL:

Voltage	Description		
	UL AWM Style 2919		
300 V RMS	CM		

Max. Recommended Current:

Current

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1.8 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
8102 060100	100 FT	4.100 LB	CHROME		2 PR #24 FHDPE SH PVC
8102 0601000	1,000 FT	38.000 LB	CHROME	С	2 PR #24 FHDPE SH PVC
8102 06010000	10,000 FT	380.000 LB	CHROME	CY	2 PR #24 FHDPE SH PVC
8102 060500	500 FT	18.500 LB	CHROME	С	2 PR #24 FHDPE SH PVC
8102 0605000	5,000 FT	185.000 LB	CHROME	С	2 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'.

Revision Number: 2 Revision Date: 08-31-2012

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