# **Detailed Specifications & Technical Data**

### **METRIC MEASUREMENT VERSION**





## 8106 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	<b>Conductor Material</b>
6	24	7x32	TC - Tinned Copper

Total Number of Conductors: 12

#### 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		Туре	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 (mm)
PVC - Polyvinyl Chloride	0.889

#### **Overall Cable**

Overall Nominal Diameter: 8.661 mm

#### Pair

#### Pair Color Code Chart:

Number	Color		
1	White/Blue & Blue/White		
2	White/Orange & Orange/White		
3	White/Green & Green/White		
4	White/Brown & Brown/White		
5	White/Gray & Gray/White		
6	Red/Blue & Blue/Red		

### **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-30°C To +80°C		
UL Temperature Rating:	80°C (UL AWM Style 2919)		
Bulk Cable Weight:	80.363 Kg/Km		
Max. Recommended Pulling Tension:	318.046 N		

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Min. Bend Radius/Minor Axis: 88.900 mm

## **Applicable Specifications and Agency Compliance (Overall)**

## App

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

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### **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm)

**Plenum Number:** 

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 41.0125

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 72.182

Nominal Velocity of Propagation:

**VP** (%) 78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 78.744

**Nominal Outer Shield DC Resistance:** 

DCR @ 20°C (Ohm/km) 11.4835

Max. Operating Voltage - UL:

Voltage Description 30 V RMS UL AWM Style 2919 300 V RMS

Max. Recommended Current:

1.5 Amps per conductor @ 25°C

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## **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
8106 060100	100 FT	6.300 LB	CHROME		6 PR #24 FHDPE SH PVC
8106 0601000	1,000 FT	58.000 LB	CHROME	С	6 PR #24 FHDPE SH PVC
8106 060500	500 FT	30.500 LB	CHROME	С	6 PR #24 FHDPE SH PVC
8106 0605000	5,000 FT	315.000 LB	CHROME		6 PR #24 FHDPE SH PVC

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 08-15-2012

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