# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



## 8164 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/422 & Digital



For more Information please call

1-800-Belden1



### **General Description:**

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

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### **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

# Pairs	AWG	Stranding	<b>Conductor Material</b>
4	24	7x32	TC - Tinned Copper

Total Number of Conductors:

#### Insulation

#### **Insulation Material:**

Insulation Trade Name		Insulation Material	Wall Thickness (mm)
	Datalene®	FPE - Foam Polyethylene	0.483

#### **Inner Shield**

### Inner Shield Material:

Inner Shield Trade Name Type		Inner Shield Material	Coverage (%)
Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100

## Inner Shield Drain Wire AWG:



Inner Shield Drain Wire Stranding: 7x32

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

#### **Outer Shield**

#### **Outer Shield Material:**

Laye	er # Outer Shield Trade Nan	ne Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	65

#### **Outer Jacket**

### **Outer Jacket Material:**

<b>Outer Jacket Material</b>	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloric	le 1.219

### **Overall Cable**

Overall Nominal Diameter: 9.855 mm

### Pair

#### **Pair Color Code Chart:**

Number	Color
1	Black & Red
2	Black & White
3	Black & Green
4	Black & Blue

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

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Operating Temperature Range:	-40°C To +60°C
UL Temperature Rating:	60°C
Bulk Cable Weight:	107.150 Kg/Km
Max. Recommended Pulling Tension:	493.750 N
Min. Bend Radius/Minor Axis:	101.600 mm

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

### **Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
AWM Specification:	UL Style 2493 (300 V 60°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
enum/Non-Plenum	

### Ple

Plenum (Y/N): No

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

Nom. Characteristic Impedance:

Impedance (Ohm)

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) 10.4992

Ind. Pair Nominal Shield DC Resistance @ 20 59.058 Ohm/km Deg. C:

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

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2.5 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
8164 060100	100 FT	8.200 LB	CHROME		4 FS PR #24 FHDPE SH PVC
8164 0601000	1,000 FT	77.000 LB	CHROME	С	4 FS PR #24 FHDPE SH PVC
8164 060500	500 FT	39.500 LB	CHROME	С	4 FS PR #24 FHDPE SH PVC

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 08-16-2012

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