# **Detailed Specifications & Technical Data**



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

8-*31*0

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 (Over	rall)					
Conductor	····					
AWG:						
# Pairs AWG Stranding Conductor   2 24 7x32 TC - Tinn	tor material ned Copper					
Total Number of Conductors: 4						
Insulation Insulation Material:						
Insulation Trade Name Insulation	Material Wall Thickness (mm)					
Datalene® FPE - Foan	m Polyethylene 0.330					
Outer Shield Outer Shield Material:						
Layer # Outer Shield Trade Name						
1 Beldfoil® 2	Tape Aluminum Foil-Polyester Tape w/Shorting Fold 100   Desid Top Tape of Occord Occord					
	Braid TC - Tinned Copper 65					
Outer Shield Drain Wire AWG: AWG Stranding Drain Wire Condu	uctor Material					
24 7x32 TC - Tinned Copp						
Outer Jacket						
Outer Jacket Material:						
	II Thickness (mm)					
PVC - Polyvinyl Chloride 0.889						
Overall Cable						
Overall Nominal Diameter:	6.858 mm					
Pair Pair Color Code Chart:						
Number Color						
1 White/Blue & Blue/White						
2 White/Orange & Orange/W	/hite					
Mechanical Characteristics (Ov	verall)					
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 Tensic	on: 122.326 N					
Min. Bend Radius/Minor Axis:	69.850 mm					
Applicable Specifications and Agency Compliance (Overall)						
Applicable Standards & Environm	iental Programs					
NEC/(UL) Specification:	СМ					
CEC/C(UL) Specification:	СМ					
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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#### METRIC MEASUREMENT VERSION

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

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
Plenum Number:	88102
Electrical Characteristics (Overall)	
Nom. Characteristic Impedance:	
Impedance (Ohm) 100	
Nom. Inductance:	
Inductance (μH/m) 0.659481	
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:	
<b>VP (%)</b> 78	
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   30 V RMS UL AWM Style 2919   300 V RMS CM	
Max. Recommended Current:	
Current 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'.

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

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