

## 8138 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-232/485



For more Information  
please call

1-800-Belden1



### General Description:

28 AWG stranded (7x36) TC conductors, Datalene® insulation, overall Beldfoil® (100% coverage) + TC braid shield (65% coverage), 28 AWG stranded TC drain wire, PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
8	28	7x36	TC - Tinned Copper

Total Number of Conductors: 16

#### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (in.)
Datalene®	FPE - Foam Polyethylene	0.015

#### 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
28	7x36	TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.039

#### Overall Cable

Overall Nominal Diameter: 0.330 in.

#### 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
7	Red/Orange & Orange/Red
8	Red/Green & Green/Red

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2919)
Bulk Cable Weight:	47 lbs/1000 ft.
Min. Bend Radius/Minor Axis:	3.500 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CL2
AWM Specification:	UL Style 2919 (30 V 80°C)
EU Directive 2011/65/EU (ROHS II):	Yes

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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
MIL Order #39 (China RoHS):	Yes

### Flame Test

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

Plenum (Y/N):	No
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## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

120

### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

11

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

Capacitance (pF/ft)

20

### Nominal Velocity of Propagation:

VP (%)

78

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

65

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

3.7

### Max. Operating Voltage - UL:

Voltage	Description
30 V RMS	UL AWM Style 2919
150 V RMS	CL2

### Max. Recommended Current:

Current  
0.7 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
8138 060100	100 FT	5.600 LB	CHROME		8 PR #28 FHDPE SH PVC
8138 0601000	1,000 FT	51.000 LB	CHROME	C	8 PR #28 FHDPE SH PVC
8138 060500	500 FT	27.000 LB	CHROME	C	8 PR #28 FHDPE SH PVC

**Notes:**  
C = CRATE REEL PUT-UP.

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