

## 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

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
2	24	7x32	TC - Tinned Copper

Total Number of Conductors: 4

#### 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	Nom. Wall 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/White

### Mechanical Characteristics (Overall)

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

### Applicable Specifications and Agency Compliance (Overall)

#### 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

## 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
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
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:

###### VP (%)

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	C	2 PR #24 FHDPE SH PVC
8102 06010000	10,000 FT	380.000 LB	CHROME	C Y	2 PR #24 FHDPE SH PVC
8102 060500	500 FT	18.500 LB	CHROME	C	2 PR #24 FHDPE SH PVC
8102 0605000	5,000 FT	185.000 LB	CHROME	C	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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