

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

## 8168 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.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
8	24	7x32	TC - Tinned Copper

Total Number of Conductors: 16

#### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (in.)
Datalene®	FPE - Foam Polyethylene	0.019

#### 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:

AWG
24

Inner Shield Drain Wire Stranding: Stranded

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

#### Outer Shield

Outer Shield Material:

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

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.048

#### Overall Cable

Overall Nominal Diameter: 0.479 in.

#### Pair

Pair Color Code Chart:

Number	Color
1	Black & Red
2	Black & White
3	Black & Green
4	Black & Blue
5	Black & Yellow
6	Black & Brown
7	Black & Orange
8	Red & White

### Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +60°C

UL Temperature Rating: 60°C (UL AWM Style 2493)

Bulk Cable Weight: 108 lbs/1000 ft.

Max. Recommended Pulling Tension: 184 lbs.

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Min. Bend Radius/Minor Axis: 5 in.

#### 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

#### Flame Test

UL Flame Test: UL1581 Vertical Tray

#### Plenum/Non-Plenum

Plenum (Y/N): No

#### Electrical Characteristics (Overall)

##### Nom. Characteristic Impedance:

Impedance (Ohm)  
100

##### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)  
12.5

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

Capacitance (pF/ft)  
22

##### Nominal Velocity of Propagation:

VP (%)  
78

##### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
24

##### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
3

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 18 Ohm/1000 ft

##### Max. Operating Voltage - UL:

Voltage  
300 V RMS

##### Max. Recommended Current:

Current  
1.1 Amps per conductor @ 25°C

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8168 060100	100 FT	12.500 LB	CHROME	C	8 FS PR #24 FHDPE SH PVC
8168 0601000	1,000 FT	115.000 LB	CHROME	C	8 FS PR #24 FHDPE SH PVC
8168 060500	500 FT	61.500 LB	CHROME	C	8 FS PR #24 FHDPE SH PVC

##### Notes:

C = CRATE REEL PUT-UP.

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