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please call

1-800-Belden1



### General Description:

Miniature, 23 AWG solid .023" bare copper conductors, solid copper, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), overall PVC jacket.

### Usage (Overall)

**Suitable Applications:** SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p, SDI/HDTV Digital Video, High Definition (HD), Standard Definition (SDI)

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
16	23	Solid	BC - Bare Copper	0.023

**Total Number of Conductors:** 16

#### Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.102

#### Inner Shield

Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	95

#### Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (in.)
PVC - Polyvinyl Chloride	.159

Inner Jacket Color Code Chart:

Number	Color
1	Brown #1
2	Red #2
3	Orange #3
4	Green #4
5	Yellow #5
6	Blue #6
7	Violet #7
8	Gray #8
9	White #9
10	Black #10
11	Tan #11
12	Pink #12
13	Gray #13
14	Gray #14
15	Gray #15
16	Gray #16

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cable

**Overall Nominal Diameter:** 0.917 in.

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -35°C To +75°C

Bulk Cable Weight:	388 lbs/1000 ft.
Max. Recommended Pulling Tension:	576 lbs.
Min. Bend Radius/Minor Axis:	9.250 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
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 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
RG Type:	Mini

#### Flame Test

UL Flame Test:	UL1666 Vertical Shaft
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#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only.
Suitability - Burial:	No

#### Plenum/Non-Plenum

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

#### Nom. Characteristic Impedance:

Impedance (Ohm)  
75

#### Nom. Inductance:

Inductance (µH/ft)  
0.106

#### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)  
16.5

#### Nominal Velocity of Propagation:

VP (%)  
83

#### Nominal Delay:

Delay (ns/ft)  
1.24

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
20.1

#### Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
7.6

#### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1.000	0.400
3.600	0.800
10.000	1.200
71.500	3.100
135.000	3.800
270.000	5.400
360.000	6.200

540.000	7.700
720.000	9.100
750.000	9.500
1000.000	10.500
1500.000	13.000
2500.000	16.900
3000.000	18.500
4500.000	24.600
6000.000	28.970

**Max. Operating Voltage - UL:**

Voltage
300 V RMS

**Other Electrical Characteristic 1:**

Return Loss: Fixed bridge and termination.

**Minimum Return Loss:**

Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
5.000	1600.000	23.000
1600.000	4500.000	21.000
4500.000	6000.000	15.000

**Sweep Test**

**Sweep Testing:**

Sweep tested 5 MHz to 6 GHz.

**Notes (Overall)**

**Notes:** Print legend includes sequential footage marks.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2178A B59N1000	1,000 FT	428.000 LB	BLACK, MATTE	C	16 #23 PE/GIFHDPE SH FRPVC PVC

**Notes:**

C = CRATE REEL PUT-UP.

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