# **Detailed Specifications & Technical Data**

**METRIC MEASUREMENT VERSION** 



# 3131A Coax - ControlBus™ Quad Shielded Coax

For more Information please call

1-800-Belden1



### **General Description:**

18 AWG solid bare copper-covered steel conductor, gas-injected foam polyethylene insulation, Duobond® IV Quad Shield (100% coverage), PVC Jacket.

# Usage (Overall)

Suitable Applications: RG-6/U Type

### **Physical Characteristics (Overall)**

### Conductor

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# Coax AWG Stranding		Stranding	ling Conductor Material Dia. (m		
1	18	Solid	BCCS - Bare Copper Covered Steel	1.016	

Total Number of Conductors:

### Insulation

#### Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FPE - Foam Polyethylene	4.572

#### **Outer Shield**

#### Outer Shield Material:

Layer #	Outer Shield Trade Name	ne Type Outer Shield Material		Coverage (%)
1	Bonded Duofoil®	Таре	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	AL - Aluminum	60
3	Duofoil®	Таре	Aluminum Foil-Polyester Tape-Aluminum Foil	100
4		Braid	AL - Aluminum	40

### **Outer Jacket**

### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### **Overall Cable**

Overall Nominal Diameter: 7.620 mm

### **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-30°C To +75°C
Bulk Cable Weight:	49.111 Kg/Km
Max. Recommended Pulling Tension:	720.608 N
Min. Bend Radius/Minor Axis:	76.200 mm

# Applicable Specifications and Agency Compliance (Overall)

# Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CL2R, CMR
CEC/C(UL) Specification:	CMR
EU Directive 2011/65/EU (ROHS II):	Yes
IEEE Specification:	802.4 MAP, 802.7 MIni-MAP
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

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	CA Prop 65 (CJ for Wire & Cable):	Yes
	MII Order #39 (China RoHS):	Yes
	RG Type:	6/U
Flame Test		
	UL Flame Test:	UL1666 Riser
	CSA Flame Test:	FT4
Ple	num/Non-Plenum	
	Plenum (Y/N):	No
	Plenum Number:	3132A

# **Surface Printing (Overall)**

### **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm)	Tolerance (Ohms)		
75	± 3		

Nom. Inductance:

Inductance (µH/m) 0.318257

Nom. Capacitance Conductor to Shield:



Nominal Velocity of Propagation:



Nominal Delay:

**Delay (ns/m)** 3.9372

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 91.868

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

Nom. Attenuation:

m. Attenuation.				
Freq. (MHz)	Attenuation (dB/100m)			
1	1.14835			
2	1.24678			
5	1.47645			
10	1.93579			
20	2.82166			
50	4.49497			
100	6.46357			
200	9.25242			
300	11.4179			
400	13.2552			

Other Electrical Characteristic 1:

Tilt 5 to 10 MHz: 0.53 dB/100 M

Other Electrical Characteristic 2:

Tilt 10 to 20 MHz: 0.89 dB/100 M

Minimum Structural Return Loss:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
		5	400	23

# Phase Delay Distortion:

F/B	%PDD/100M (5MB)	%PDD/100M (10MB)
0.5	-1.03	-1.58
1.0	-0.30	-0.57
1.5	0	0
2.0	+0.20	+0.40
2.5	+0.40	+0.69

### Notes (Overall)

Notes: Sweep tested 5 to 400 MHz. Tap Marks Every 2.6 Meters to aid in users installation.

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### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3131A F2V1000	1,000 FT	39.000 LB	GRAY, DEC		#18 GIFHDLDPE DBSH PVC

Revision Number: 1 Revision Date: 04-25-2008

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