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1-800-Belden1



## General Description:

Series 6, 18 AWG solid .040" bare copper conductor, gas-injected foam polyethylene insulation, Duobond® + aluminum braid shields (60% and 40% coverage), PVC jacket (black or white).

## Usage (Overall)

Suitable Applications: HDTV, DBS, Broadband CATV, Cable Modem

## Physical Characteristics (Overall)

### Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	18	Solid	BC - Bare Copper	1.016

Total Number of Conductors: 1

### Insulation

Insulation Material:

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

### Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	AL - Aluminum	60
3	Duofoil®	Tape	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: 7.569 mm

## Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +80°C

Bulk Cable Weight: 49.111 Kg/Km

Max. Recommended Pulling Tension: 462.613 N

Min. Bend Radius/Minor Axis: 76.200 mm

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CATV, CM

CEC/C(UL) Specification: CM

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

Series Type: Series 6

**Flame Test**

UL Flame Test: UL1685 UL Loading

**Plenum/Non-Plenum**

Plenum (Y/N): No

Plenum Number: 7916AP

**Electrical Characteristics (Overall)**

**Nom. Characteristic Impedance:**

Impedance (Ohm)  
75.000

**Nom. Inductance:**

Inductance (µH/m)  
0.318257

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/m)  
53.1522

**Nominal Velocity of Propagation:**

VP (%)  
83

**Nominal Delay:**

Delay (ns/m)  
3.9372

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/km)  
20.9984

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/km)  
15.7488

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100m)
5	1.6405
55	4.5934
211	8.5306
500	13.4521
750	16.7331
862	18.0455
1000	19.686
1450	25.5918
1800	28.2166
2250	32.1538
3000	37.0753

**Max. Attenuation:**

Freq. (MHz)	Attenuation (dB/100m)
5	2.19827
55	5.2496
211	9.41647
500	14.6989
750	18.3408
862	19.6204
1000	21.4577
1450	26.248
1800	28.8728
2250	32.81
3000	39.0439

**Max. Operating Voltage - UL:**

Voltage  
300 V RMS

**Shield Effectiveness:**

Start Freq. (MHz)	Stop Freq. (MHz)	Effectiveness (dB)
5	50	105

# Detailed Specifications & Technical Data



## METRIC MEASUREMENT VERSION

## 7916A Coax - Series 6

50	1000	110
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### Typical Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Typical SRL (dB)
5	1000	30
1000	3000	24

### Minimum Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5	1000	20
1000	2250	15
2250	3000	10

### Sweep Test

Sweep Testing: 5 MHz - 3 GHz

### Notes (Overall)

Notes: Shielding effectiveness determined from screening attenuation measurement when tested in accordance with IEC 61196-1.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7916A 009U1000	1,000 FT	36.000 LB	WHITE		#18 LDPE/GIFHDLPE DBSH PVC
7916A 009U500	500 FT	18.500 LB	WHITE		#18 LDPE/GIFHDLPE DBSH PVC
7916A 009I1000	1,000 FT	35.000 LB	WHITE	C	#18 LDPE/GIFHDLPE DBSH PVC
7916A 009I500	500 FT	16.000 LB	WHITE	C	#18 LDPE/GIFHDLPE DBSH PVC
7916A 010U1000	1,000 FT	36.000 LB	BLACK		#18 LDPE/GIFHDLPE DBSH PVC
7916A 010U500	500 FT	18.500 LB	BLACK		#18 LDPE/GIFHDLPE DBSH PVC
7916A 010I1000	1,000 FT	35.000 LB	BLACK	C	#18 LDPE/GIFHDLPE DBSH PVC
7916A 010I500	500 FT	16.000 LB	BLACK	C	#18 LDPE/GIFHDLPE DBSH PVC
7916A 010I5000	5,000 FT	190.000 LB	BLACK	C	#18 LDPE/GIFHDLPE DBSH PVC

### Notes:

C = CRATE REEL PUT-UP.

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