

## 7916A Coax - Series 6

For more Information  
please call

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. (in.) |
|--------|-----|-----------|--------------------|------------|
| 1      | 18  | Solid     | BC - Bare Copper   | .040       |

Total Number of Conductors: 1

#### Insulation

Insulation Material:

| Insulation Material                  | Dia. (in.) |
|--------------------------------------|------------|
| Gas-injected FPE - Foam Polyethylene | .180       |

#### 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: 0.298 in.

### Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 33 lbs/1000 ft.

Max. Recommended Pulling Tension: 104 lbs.

Min. Bend Radius/Minor Axis: 3 in.

### 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/ft)  
.097

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/ft)  
16.2

**Nominal Velocity of Propagation:**

VP (%)  
83

**Nominal Delay:**

Delay (ns/ft)  
1.2

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)  
6.4

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)  
4.8

**Nom. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 5           | 0.5                      |
| 55          | 1.4                      |
| 211         | 2.6                      |
| 500         | 4.1                      |
| 750         | 5.1                      |
| 862         | 5.5                      |
| 1000        | 6.0                      |
| 1450        | 7.8                      |
| 1800        | 8.6                      |
| 2250        | 9.8                      |
| 3000        | 11.3                     |

**Max. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 5           | 0.67                     |
| 55          | 1.60                     |
| 211         | 2.87                     |
| 500         | 4.48                     |
| 750         | 5.59                     |
| 862         | 5.98                     |
| 1000        | 6.54                     |
| 1450        | 8.00                     |
| 1800        | 8.80                     |
| 2250        | 10.0                     |
| 3000        | 11.9                     |

**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



ENGLISH MEASUREMENT VERSION

7916A Coax - Series 6

|    |      |     |
|----|------|-----|
| 50 | 1000 | 110 |
|----|------|-----|

**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   | 19.500 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   | 19.500 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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