

# Detailed Specifications & Technical Data



METRIC MEASUREMENT VERSION



9116 Coax - CATV Cable

For more Information  
please call

1-800-Belden1



## General Description:

Series 6, 18 AWG solid .040" bare copper-covered steel conductor, gas-injected foam polyethylene insulation, Duobond® II + aluminum braid shield (60% coverage), PVC jacket.

## Physical Characteristics (Overall)

### Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material               | Dia. (mm) |
|--------|-----|-----------|----------------------------------|-----------|
| 1      | 18  | Solid     | BCCS - Bare Copper Covered Steel | 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           |

### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

### Overall Cable

Overall Nominal Diameter: 6.858 mm

## Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 40.181 Kg/Km

Max. Recommended Pulling Tension: 560.473 N

Min. Bend Radius/Minor Axis: 69.850 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: | UL1581 Vertical Flame and FT-1 Flame Test |
|----------------|---|

### Plenum/Non-Plenum

|                |       |
|----------------|-------|
| Plenum (Y/N):  | No    |
| Plenum Number: | 9116P |

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

| Impedance (Ohm) | Tolerance (Ohms) |
|-----------------|------------------|
| 75              | ± 3              |

### 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) |
|---------------------|
| 91.868              |

### Nominal Outer Shield DC Resistance:

| DCR @ 20°C (Ohm/km) |
|---------------------|
| 29.529              |

### Max. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 5           | 2.19827               |
| 55          | 5.2496                |
| 211         | 9.41647               |
| 270         | 10.6304               |
| 300         | 11.2538               |
| 350         | 12.2053               |
| 400         | 13.124                |
| 450         | 13.9771               |
| 550         | 15.4535               |
| 750         | 18.3408               |
| 870         | 19.686                |
| 1000        | 21.4577               |

### Max. Operating Voltage - UL:

| Voltage   |
|-----------|
| 300 V RMS |

### Minimum Structural Return Loss:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Min. SRL (dB) |
|-------------|-------------|-------------------|------------------|---------------|
|-------------|-------------|-------------------|------------------|---------------|

|  |  |   |      |    |
|--|--|---|------|----|
|  |  | 5 | 1000 | 20 |
|--|--|---|------|----|

**Sweep Test**

Sweep Testing: 5 MHz - 1 GHz

**Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color          | Notes | Item Desc             |
|---------------|----------|-------------|----------------|-------|-----------------------|
| 9116 Q5HU1000 | 1,000 FT | 29.000 LB   | WHITE, NEUTRAL |       | #18 GIFHDL DPE SH PVC |
| 9116 Q5H1000  | 1,000 FT | 30.000 LB   | WHITE, NEUTRAL |       | #18 GIFHDL DPE SH PVC |
| 9116 009N1000 | 1,000 FT | 30.000 LB   | WHITE          | C     | #18 GIFHDL DPE SH PVC |
| 9116 009U1000 | 1,000 FT | 29.000 LB   | WHITE          |       | #18 GIFHDL DPE SH PVC |
| 9116 009I1000 | 1,000 FT | 30.000 LB   | WHITE          |       | #18 GIFHDL DPE SH PVC |
| 9116 009500   | 500 FT   | 15.500 LB   | WHITE          |       | #18 GIFHDL DPE SH PVC |
| 9116 010N1000 | 1,000 FT | 30.000 LB   | BLACK          | C     | #18 GIFHDL DPE SH PVC |
| 9116 010S700  | 700 FT   | 18.900 LB   | BLACK          |       | #18 GIFHDL DPE SH PVC |
| 9116 010U1000 | 1,000 FT | 29.000 LB   | BLACK          |       | #18 GIFHDL DPE SH PVC |
| 9116 010U500  | 500 FT   | 15.000 LB   | BLACK          |       | #18 GIFHDL DPE SH PVC |
| 9116 010I1000 | 1,000 FT | 30.000 LB   | BLACK          | C     | #18 GIFHDL DPE SH PVC |
| 9116 010500   | 500 FT   | 15.500 LB   | BLACK          |       | #18 GIFHDL DPE SH PVC |
| 9116 290U1000 | 1,000 FT | 29.000 LB   | BEIGE, LIGHT   |       | #18 GIFHDL DPE SH PVC |

**Notes:**

C = CRATE REEL PUT-UP.

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