Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7790A Coax - Bundled Miniature

For more Information 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.

6

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | • | Conductor Material | ` ' |
|--------|-----|-------|--------------------|------|
| 6 | 23 | Solid | BC - Bare Copper | .023 |

Total Number of Conductors:

Insulation

Insulation Material:

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

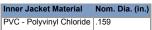
Inner Shield

Inner Shield Material:

| Layer # | Inner Shield Trade Name | Туре | 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 Color Code Chart:

| Number | Color |
|--------|--------|
| 1 | Red |
| 2 | Green |
| 3 | Blue |
| 4 | White |
| 5 | Yellow |
| 6 | Brown |

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 0.597 in.

Mechanical Characteristics (Overall)

| Operating Temperature Range: | -35°C To +75°C |
|-----------------------------------|------------------|
| UL Temperature Rating: | 60°C |
| Non-UL Temperature Rating: | 75°C |
| Bulk Cable Weight: | 162 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 216 lbs. |
| Min. Bend Radius/Minor Axis: | 6 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 | |

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| 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 |
| RG Type: | Mini |
| Flame Test | |
| UL Flame Test: | UL1666 Vertical Shaft |
| CSA Flame Test: | FT4 |
| Suitability | |
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | Yes |
| Plenum/Non-Plenum | |
| Plenum (Y/N): | No |
| | |

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)

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 |

Max. Operating Voltage - UL:

Voltage

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300 V RMS

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge Other Electrical Characteristic 1:

and termination.

Other Electrical Characteristic 2: Return Loss Tested in Accordance With ASTM D-4566 Paragraph 45.3, Using a 75 Ohm 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 |

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 4.5 GHz

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|--------------|-------|-----------------------------|
| 7790A B591000 | 1,000 FT | 178.000 LB | BLACK, MATTE | С | 6 #23 PE/GIFHDPE SH PVC PVC |
| 7790A B59500 | 500 FT | 90.000 LB | BLACK, MATTE | С | 6 #23 PE/GIFHDPE SH PVC PVC |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 3 Revision Date: 05-10-2013

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