METRIC MEASUREMENT VERSION



7789A 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.

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Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|---------------------------|-----------|
| 5 | 23 | Solid | BC - Bare Copper | 0.5842 |

Total Number of Conductors:

Insulation

Insulation Material:

| Insulation Material | Dia. (mm) |
|---|-----------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 2.5908 |

Inner Shield

Inner Shield Material:

| Layer # | Inner Shield Trade Name | Type | 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 Material | Nom. Dia. (mm) |
|--------------------------|----------------|
| PVC - Polyvinyl Chloride | 4.0386 |

Inner Jacket Color Code Chart:

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

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 13.691 mm

| chanical Characteristics (Overall) | |
|------------------------------------|----------------|
| Operating Temperature Range: | -35°C To +75°C |
| UL Temperature Rating: | 60°C |
| Non-UL Temperature Rating: | 75°C |
| Bulk Cable Weight: | 202.395 Kg/Km |
| Max. Recommended Pulling Tension: | 800.676 N |

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| Min. Bend Radius/Minor Axis: | 139.700 mm |
|---|-----------------------|
| applicable Specifications and Agency Co | ompliance (Overall) |
| Applicable Standards & Environmental Prog | rams |
| NEC/(UL) Specification: | CMR |
| CEC/C(UL) Specification: | CMG |
| 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 |

Nom. Characteristic Impedance:

Impedance (Ohm)

Nom. Inductance:

Inductance (µH/m) 0.347786

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m) 54.1365

Nominal Velocity of Propagation:

VP (%) 83

Nominal Delay:

Delay (ns/m) 4.06844

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 65.9481

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/km) 24.9356

Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100m)

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| 1.3124 |
|---------|
| 2.6248 |
| 3.9372 |
| 10.1711 |
| 12.4678 |
| 17.7174 |
| 20.3422 |
| 25.2637 |
| 29.8571 |
| 31.1695 |
| 34.4505 |
| 42.653 |
| 55.4489 |
| 60.6985 |
| |

Max. Operating Voltage - UL:

Voltage 300 V RMS

Other Electrical Characteristic 1:

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge 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 | 850 | 23 |
| 851 | 3000 | 15 |

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 3 GHz.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|--------|-------------|--------------|-------|-----------------------------|
| 7789A B591000 | 305 MT | 68.493 KG | BLACK, MATTE | С | 5 #23 PE/GIFHDPE SH PVC PVC |
| 7789A B59500 | 152 MT | 34.246 KG | BLACK, MATTE | С | 5 #23 PE/GIFHDPE SH PVC PVC |

C = CRATE REEL PUT-UP.

Test Reports

- i) UL Test Reports are available on-line through the UL Client Document Access web portal. ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CŚA

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ií) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

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^{*} other test data may be available if requested at time of order.

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to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

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