

7731A Coax - Low Loss Serial Digital Coax

For more Information
please call

1-800-Belden1



Description:

RG-11/U type, 14 AWG solid .064" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|--------------------|------------|
| 1 | 14 | Solid | BC - Bare Copper | .064 |

Insulation

Insulation Material:

| Insulation Material | Dia. (in.) |
|---|------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | .280 |

Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---------|-------------------------|-------|--|--------------|
| 1 | Duofoil® | Tape | Aluminum Foil-Polyester Tape-Aluminum Foil | 100 |
| 2 | | Braid | TC - Tinned Copper | 95 |

Outer Jacket

Outer Jacket Material:

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

Overall Cabling

Overall Nominal Diameter: 0.400 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 87 lbs/1000 ft.

Max. Recommended Pulling Tension: 145 lbs.

Min. Bend Radius (Install)/Minor Axis: 4 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

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

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EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS): Yes

RG Type: 11/U

Flame Test

UL Flame Test: UL1666 Vertical Shaft

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes - Black only.

Suitability - Aerial: Yes - Black only, when supported by a messenger wire

Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 7732A

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/ft)

0.097

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

16.0

Nominal Velocity of Propagation:

VP (%)

85

Nominal Delay:

Delay (ns/ft)

1.21

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.5

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

1.5

Nom. Attenuation:

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

1 0.16

3.58 0.29

5 0.34

7 0.39

10 0.46

67.5 1.05

71.5 1.09

88.5 1.21

100 1.28

135 1.47

143 1.51

180 1.69

270 2.09

360 2.45

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| | |
|------|-------|
| 540 | 3.06 |
| 720 | 3.58 |
| 750 | 3.66 |
| 1000 | 4.30 |
| 1500 | 5.50 |
| 2000 | 6.40 |
| 2250 | 6.90 |
| 3000 | 8.20 |
| 4500 | 10.40 |

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 |
| 850 | 3000 | 21 |

Sweep Test

Sweep Testing: 100% Sweep tested 5 MHz to 3 GHz.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------------|-------|----------------------------|
| 7731A N3U1000 | 1,000 FT | 95.000 LB | GREEN, MIL | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A N3U4000 | 4,000 FT | 388.000 LB | GREEN, MIL | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0011000 | 1,000 FT | 95.000 LB | BROWN | | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0014000 | 4,000 FT | 388.000 LB | BROWN | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0021000 | 1,000 FT | 95.000 LB | RED | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0024000 | 4,000 FT | 388.000 LB | RED | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0031000 | 1,000 FT | 95.000 LB | ORANGE | | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0034000 | 4,000 FT | 388.000 LB | ORANGE | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0041000 | 1,000 FT | 95.000 LB | YELLOW | | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0044000 | 4,000 FT | 388.000 LB | YELLOW | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0061000 | 1,000 FT | 95.000 LB | BLUE, LIGHT | | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0064000 | 4,000 FT | 388.000 LB | BLUE, LIGHT | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0071000 | 1,000 FT | 95.000 LB | VIOLET | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0074000 | 4,000 FT | 388.000 LB | VIOLET | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0081000 | 1,000 FT | 95.000 LB | GRAY | | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0084000 | 4,000 FT | 388.000 LB | GRAY | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0091000 | 1,000 FT | 95.000 LB | WHITE | | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0094000 | 4,000 FT | 388.000 LB | WHITE | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0101000 | 1,000 FT | 95.000 LB | BLACK | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 0104000 | 4,000 FT | 388.000 LB | BLACK | C | #14 PE/GIFHDL DPE SH FRPVC |
| 7731A 010500 | 500 FT | 46.500 LB | BLACK | C | #14 PE/GIFHDL DPE SH FRPVC |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 5 Revision Date: 09-30-2009

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