

METRIC MEASUREMENT VERSION

## 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.

| -    |                                | haracteris          | stics (Ov    | erall    |                 |          |                    |              |      |  |
|------|--------------------------------|---------------------|--------------|----------|-----------------|----------|--------------------|--------------|------|--|
|      | nductor<br>WG:                 |                     |              |          |                 |          |                    |              |      |  |
|      | # Coax                         | AWG Strandin        | ng Conducto  | r Mate   | erial Dia. (mm) |          |                    |              |      |  |
|      | 1 1                            | 14 Solid            | BC - Bare    | Coppe    | er 1.6256       |          |                    |              |      |  |
| Insu | ulation                        |                     |              |          |                 |          |                    |              |      |  |
| In   |                                | Material:           |              |          |                 |          |                    |              |      |  |
|      |                                | on Material         | Foom High D  | oncity I | Polyethylene 7. | ia. (mm) |                    |              |      |  |
|      |                                |                     |              | ensity   |                 | 112      |                    |              |      |  |
|      | er Shiel                       | ld<br>eld Material: |              |          |                 |          |                    |              |      |  |
| 0    |                                |                     |              | Type     | Outer Shield M  | laterial |                    | Coverage (%) |      |  |
|      | -                              | Duofoil®            |              |          |                 |          | Tape-Aluminum Foil |              |      |  |
|      | 2                              |                     |              | Braid    | TC - Tinned Co  | pper     |                    | 95           |      |  |
| Out  | er Jack                        | et                  |              |          |                 |          |                    |              |      |  |
| 0    | uter Jac                       | ket Material:       |              |          |                 |          |                    |              |      |  |
|      |                                | cket Material       |              |          |                 |          |                    |              |      |  |
|      | PVC-PC                         | olyvinyl Chlorid    | e            |          |                 |          |                    |              |      |  |
|      | erall Cal                      |                     |              |          |                 |          |                    |              |      |  |
| _    | Overall I                      | Nominal Dia         | meter:       |          |                 | 10.160   | mm                 |              |      |  |
| Nec  | hanica                         | I Characte          | eristics (   | Over     | all)            |          |                    |              |      |  |
|      | Operatir                       | ng Temperat         | ure Range    |          |                 | -30°C    | To +75°C           |              |      |  |
|      | UL Tem                         | perature Rat        | ing:         |          |                 | 75°C     |                    |              |      |  |
|      | Bulk Ca                        | ble Weight:         |              |          |                 | 129.47   | 3 Kg/Km            |              |      |  |
|      | Max. Re                        | commended           | l Pulling Te | nsior    | ı:              | 644.98   | 9 N                |              |      |  |
|      | Min. Ber                       | nd Radius (lı       | nstall)/Mind | or Axi   | s:              | 101.60   | 0 mm               |              |      |  |
|      | licable                        | Specifica           | tions an     | d Aa     | ency Com        | plianc   | e (Overall)        |              |      |  |
|      |                                | -                   |              | -        | ntal Program    | -        |                    |              |      |  |
|      |                                | .) Specificat       |              |          | Ũ               | CMR      |                    |              |      |  |
| _    | CEC/C(L                        | JL) Specifica       | ation:       |          |                 | CMG      |                    |              | <br> |  |
|      | EU CE N                        | lark:               |              |          |                 | Yes      |                    |              |      |  |
| _    | EU Directive 2000/53/EC (ELV): |                     |              | Yes      |                 |          |                    |              |      |  |
| -    | EU Direc                       | ctive 2002/9        | 5/EC (RoHS   | 5):      |                 | Yes      |                    |              |      |  |
|      | EU RoH                         | S Compliand         | ce Date (mr  | n/dd/y   | уууу):          | 01/01/2  | 2004               |              |      |  |
|      | EU Direc                       | ctive 2002/96       | 6/EC (WEEI   | Ξ):      |                 | 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.     |
| Plenum/Non-Plenum                    |                       |
| Plenum (Y/N):                        | No                    |
| Plenum Number:                       | 7732A                 |
| Electrical Characteristics (Overall) |                       |
| Nom. Characteristic Impedance:       |                       |
| Impedance (Ohm)<br>75                |                       |
| Nom. Inductance:                     |                       |
| Inductance (µH/m)<br>0.318257        |                       |

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

52.496

Nominal Velocity of Propagation:



Nominal Delay:

Delay (ns/m)

3.97001

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

8.2025

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 4.9215

#### Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 1           | 0.52496               |
| 3.58        | 0.95149               |
| 5           | 1.11554               |
| 7           | 1.27959               |
| 10          | 1.50926               |
| 67.5        | 3.44505               |
| 71.5        | 3.57629               |
| 88.5        | 3.97001               |
| 100         | 4.19968               |
| 135         | 4.82307               |
| 143         | 4.95431               |
| 180         | 5.54489               |
| 270         | 6.85729               |
| 360         | 8.03845               |
| 540         | 10.0399               |
| 720         | 11.746                |



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| 750  | 12.0085 |
|------|---------|
| 1000 | 14.1083 |
| 1500 | 18.0455 |
| 2000 | 20.9984 |
| 2250 | 22.6389 |
| 3000 | 26.9042 |
| 4500 | 34.1224 |

#### 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) |
|-------------------|------------------|--------------|
| 5.000             | 1600.000         | 23.000       |
| 1601.000          | 4500.000         | 21.000       |

#### **Sweep Test**

Sweep Testing:

100% Sweep tested 5 MHz to 4.5 GHz.

## **Related Documents:**

No related documents are available for this product

#### **Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc                 |
|---------------|----------|-------------|-------------|-------|---------------------------|
| 7731A N3U1000 | 305 MT   | 43.091 KG   | GREEN, MIL  | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A N3U4000 | 1,219 MT | 175.995 KG  | GREEN, MIL  | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0011000 | 305 MT   | 43.091 KG   | BROWN       |       | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0014000 | 1,219 MT | 175.995 KG  | BROWN       | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0021000 | 305 MT   | 43.091 KG   | RED         | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0024000 | 1,219 MT | 175.995 KG  | RED         | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0031000 | 305 MT   | 43.091 KG   | ORANGE      |       | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0034000 | 1,219 MT | 175.995 KG  | ORANGE      | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0041000 | 305 MT   | 43.091 KG   | YELLOW      |       | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0044000 | 1,219 MT | 175.995 KG  | YELLOW      | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0061000 | 305 MT   | 43.091 KG   | BLUE, LIGHT |       | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0064000 | 1,219 MT | 175.995 KG  | BLUE, LIGHT | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0071000 | 305 MT   | 43.091 KG   | VIOLET      | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0074000 | 1,219 MT | 175.995 KG  | VIOLET      | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0081000 | 305 MT   | 43.091 KG   | GRAY        |       | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0084000 | 1,219 MT | 175.995 KG  | GRAY        | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0091000 | 305 MT   | 43.091 KG   | WHITE       |       | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0094000 | 1,219 MT | 175.995 KG  | WHITE       | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0101000 | 305 MT   | 43.091 KG   | BLACK       | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 0104000 | 1,219 MT | 175.995 KG  | BLACK       | С     | #14 PE/GIFHDLDPE SH FRPVC |
| 7731A 010500  | 152 MT   | 21.092 KG   | BLACK       | С     | #14 PE/GIFHDLDPE SH FRPVC |
|               |          |             |             |       |                           |

Notes:

C = CRATE REEL PUT-UP.

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