



Product: [3094A](#)

ControlBus™, Coax RG11, #14 Sol BCCS, PO Ins, QUAD AL Shld, PVC Jkt, CMR

 Request Sample

Product Description

ControlBus™, Coax RG11 14AWG (Solid) Bare Copper Covered Steel, PO Insulation, Overall Duofoil®+ Aluminum Braid(60%)+Overall Duofoil®+Aluminum Braid(40%) Shield, PVC Outer Jacket, CMR

Technical Specifications

Product Overview

|                        |                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | harsh environment, factory automation, ControlNet™, Modbus II, Industrial Coax, Belden ControlNet cables provide maximum signal integrity and run length exceeding the high-speed, time-critical requirements necessary for ControlNet factory floor applications |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material                         | Nominal Diameter | No. of Coax |
|-----|-----------|----------------------------------|------------------|-------------|
| 14  | Solid     | BCCS - Bare Copper Covered Steel | 0.064 in         | 1           |

Conductor Count: 1

Insulation

| Material                 | Nominal Diameter |
|--------------------------|------------------|
| PE - Polyethylene (Foam) | 0.28 in          |

Table Notes: Gas Injected

| Color Chart |  |
|-------------|--|
| Number      |  |
| Pair        |  |
| Ground      |  |

| Inner Jacket Material    |                  |
|--------------------------|------------------|
| Material                 | Nominal Diameter |
| PVC - Polyvinyl Chloride | 0.407 in         |

| Outer Shield Material |       |                              |                     |              |
|-----------------------|-------|------------------------------|---------------------|--------------|
| Type                  | Layer | Material                     | Material Trade Name | Coverage [%] |
| Tape                  | 1     | Alum / Poly / Alum           | Bonded Duofoil®     | 100.0%       |
| Braid                 | 2     | Aluminum                     |                     | 60.0%        |
| Tape                  | 3     | Alum / Poly / Alum           | Duofoil®            | 100%         |
| Braid                 | 4     | Aluminum                     |                     | 40%          |
| Table Notes:          |       | Tape is bonded to dielectric |                     |              |

| Outer Jacket Material    |                  |
|--------------------------|------------------|
| Material                 | Nominal Diameter |
| PVC - Polyvinyl Chloride | 0.0407 in        |
|                          | 0.407 in         |

Construction and Dimensions

| Type of Armor     | Material |
|-------------------|----------|
| Interlocked Armor | Aluminum |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR | Outer Conductor DCR |
|-----------------------|--------------------------|---------------------|
| 11 Ohm/1000ft         | 1.5 Ohm/1000ft           | 1.5 Ohm/1000ft      |

Capacitance

| Nom. Capacitance Conductor to Shield |
|--------------------------------------|
| 16.2 pF/ft                           |

Inductance

| Nominal Inductance |
|--------------------|
| 0.097 µH/ft        |

Impedance

| Nominal Characteristic Impedance | Nominal Characteristic Tolerance |
|----------------------------------|----------------------------------|
| 75 Ohm                           | ± 3 Ohm                          |

Return Loss (RL)

| Frequency [MHz] | Min. Structural Return Loss (SRL) |
|-----------------|-----------------------------------|
| 5-400 MHz       | 20 dB                             |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz MHz       | 0.16 dB/100ft       |
| 2 MHz MHz       | 0.18 dB/100ft       |
| 5 MHz MHz       | 0.26 dB/100ft       |
| 10 MHz MHz      | 0.38 dB/100ft       |
| 20 MHz MHz      | 0.55 dB/100ft       |
| 50 MHz MHz      | 0.83 dB/100ft       |
| 100 MHz MHz     | 1.17 dB/100ft       |
| 200 MHz MHz     | 1.60 dB/100ft       |
| 300 MHz MHz     | 1.99 dB/100ft       |
| 400 MHz MHz     | 2.30 dB/100ft       |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|------------------------------------------|
| 1.24 ns/ft    | 82.0%                                    |

High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) |
|-----------------|-----------------------------------|
| 1 MHz           | 0.33 dB/100ft                     |
| 2 MHz           | 0.35 dB/100ft                     |
| 5 MHz           | 0.44 dB/100ft                     |
| 10 MHz          | 0.66 dB/100ft                     |
| 20 MHz          | 0.78 dB/100ft                     |
| 50 MHz          | 0.99 dB/100ft                     |
| 100 MHz         | 1.32 dB/100ft                     |
| 200 MHz         | 1.87 dB/100ft                     |
| 300 MHz         | 2.29 dB/100ft                     |
| 400 MHz         | 2.64 dB/100ft                     |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V RMS         |

Temperature Range

|                       |               |
|-----------------------|---------------|
| UL Temp Rating:       | 75°C          |
| Operating Temp Range: | -40°C To 75°C |

Mechanical Characteristics

|                             |               |
|-----------------------------|---------------|
| Bulk Cable Weight:          | 59 lbs/1000ft |
| Max. Pull Tension:          | 40 lbs        |
| Min Bend Radius/Minor Axis: | 4.25 in       |

Standards

|                       |                          |
|-----------------------|--------------------------|
| NEC Articles:         | Article 725, Article 800 |
| NEC/(UL) Compliance:  | CL2R, CMR                |
| CEC/C(UL) Compliance: | CMG                      |
| RG Type:              | 11/U Type                |

Applicable Environmental and Other Programs

|                                       |                               |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV):        | Yes                           |
| EU Directive 2003/11/EC (BFR):        | Yes                           |
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2012-01-01                    |
| MII Order #39 (China RoHS):           | Yes                           |

Suitability

|                                    |                                        |
|------------------------------------|----------------------------------------|
| Suitability - Aerial:              | Yes - When supported by messenger wire |
| Suitability - Burial:              | No                                     |
| Suitability - Hazardous Locations: | No                                     |
| Suitability - Indoor:              | Yes                                    |
| Suitability - Outdoor:             | Yes                                    |
| Suitability - Sunlight Resistance: | Yes                                    |

Flammability, LS0H, Toxicity Testing

|                    |               |
|--------------------|---------------|
| UL Flammability:   | UL 1666 Riser |
| CSA Flammability:  | FT4           |
| UL voltage rating: | 300 V RMS     |

Plenum/Non-Plenum

|                |       |
|----------------|-------|
| Plenum (Y/N):  | No    |
| Plenum Number: | 3095A |

Part Number

Variants

| Item #        | Color     | Putup Type | Length   | UPC          |
|---------------|-----------|------------|----------|--------------|
| 3094A F2V500  | Gray, DEC | Reel       | 500 ft   | 612825141525 |
| 3094A F2V1000 | Gray, DEC | Reel       | 1,000 ft | 612825141501 |
| 3094A F2V2000 | Gray, DEC | Reel       | 2,000 ft | 612825141518 |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

Product Notes

|        |                                                          |
|--------|----------------------------------------------------------|
| Notes: | Tap marks every 2.6 Meters to aid users in installation. |
|--------|----------------------------------------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.330 Revision Date: 06-01-2020 |
|----------------------|--------------------------------------------------|

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