



REPRESENTATIVE IMAGE

**Product:** [3092F](#)

ControlBus™, Coax RG-6, #20 Str BC, FPE Ins, QUAD AL Shld, PVC Jkt, High Flex, CMR

[Request Sample](#)

## Product Description

Coax RG-6 20 AWG (105x40) Bare Copper, Foam PE Insulation, Overall Duobond® II+Aluminum Braid(60%)+Duofoil®+Aluminum Braid(40%) Shield, PVC Outer Jacket, High Flex, 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 |
|------------------------|---|

### Construction Details

|          |   |
|----------|---|
| RG Type: | 6 |
|----------|---|

#### Conductor

| AWG | Stranding | Nom. Diameter | Material         |
|-----|-----------|---------------|------------------|
| 20  | 105x40    | 0.040 in      | BC - Bare Copper |

#### Insulation

| Material                 | Nom. Diameter |
|--------------------------|---------------|
| PE - Polyethylene (Foam) | 0.183 in      |

#### Outer Shield Material

| Layer | Outer Shield Type | Material                      | Material Trade Name | Coverage |
|-------|-------------------|-------------------------------|---------------------|----------|
| 1     | Tape              | Tri-Laminate (Alum+Poly+Alum) | Duobond® II         | 100%     |
| 2     | Braid             | Aluminum                      |                     | 60%      |
| 3     | Tape              | Tri-Laminate (Alum+Poly+Alum) | Duofoil®            | 60%      |
| 4     | Braid             | Aluminum                      |                     | 40%      |

#### Outer Jacket Material

| Material                 | Nom. Diameter |
|--------------------------|---------------|
| PVC - Polyvinyl Chloride | 0.303 in      |

### Electrical Characteristics

#### Return Loss (RL)

| Frequency [MHz] | Min. Structural Return Loss [dB] |
|-----------------|----------------------------------|
| 5 - 400 MHz     | 23 dB                            |

#### Attenuation

| Frequency | Nom. Attenuation [dB/100ft] |
|-----------|-----------------------------|
| 1 MHz     | 0.36 dB/100ft               |
| 2 MHz     | 0.47 dB/100ft               |
| 5 MHz     | 0.8 dB/100ft                |
| 10 MHz    | 1.2 dB/100ft                |
| 20 MHz    | 2.0 dB/100ft                |
| 50 MHz    | 3.2 dB/100ft                |
| 100 MHz   | 4.6 dB/100ft                |

|         |              |
|---------|--------------|
| 200 MHz | 6.5 dB/100ft |
| 300 MHz | 8 dB/100ft   |
| 400 MHz | 9.3 dB/100ft |

#### Electricals

| Nom. Conductor DCR | Nom. Outer Shield DCR | Nom. Capacitance Cond-to-Shield | Nom. Impedance |
|--------------------|-----------------------|---------------------------------|----------------|
| 10.5 Ohm/1000ft    | 2.6 Ohm/1000ft        | 16.3 pF/ft                      | 75 Ohm         |

#### Voltage

##### UL Voltage Rating

300 V (CMR, CMG)

Electrical Characteristics Notes: IEEE 802.4 MAP/IEEE 802.7 Mini-Map

## Mechanical Characteristics

#### Temperature

| UL Rating | Operating      |
|-----------|----------------|
| 75°C      | -40°C to +75°C |

#### Bend Radius

##### Installation Min.

3 in

Bulk Cable Weight: 29 lbs/1000ft

Max. Pull Tension: 371 lbs

## Standards and Compliance

|                                 |   |
|---------------------------------|---|
| Environmental Suitability:      | Indoor - Riser, Indoor  |
| Sustainability:                 | CA Prop 65  |
| Flammability / Fire Resistance: | UL 1666 Riser, FT4  |
| NEC / UL Compliance:            | CMR, CL2R   |
| CEC / C(UL) Compliance:         | CMG   |
| European Directive Compliance:  | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance:                | China RoHS II (GB/T 26572-2011)   |

## Product Notes

Notes: Flex Life: 1.5 Million cycles @ 6.0" minimum bend radius. For Rockwell authorized Flexible ControlNet order YR28890 (Tinned Copper Braid Version).

## History

Update and Revision: Revision Number: 0.374 Revision Date: 08-25-2020

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