



Product: [3092F](#)

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

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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

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

Insulation

| Material                 | Nom. Insulation Diameter | Color Code |
|--------------------------|--------------------------|------------|
| PE - Polyethylene (Foam) | 0.183 in (4.65 mm)       | White      |

Outer Shield

| 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®            | 100%     |
| 4     | Braid             | Aluminum                      |                     | 40%      |

Outer Jacket

| Material                 | Nom. Diameter      |
|--------------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.303 in (7.70 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.303 in (7.70 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Return Loss (RL)

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

Attenuation

| Frequency | Nom. Attenuation |
|-----------|------------------|
| 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. Characteristic Impedance | Nom. Velocity of Prop. |
|--------------------|-----------------------------|---------------------------------|-------------------------------|------------------------|
| 10.5 Ohm/1000ft    | 2.6 Ohm/1000ft (8.5 Ohm/km) | 16.3 pF/ft (53.5 pF/m)          | 75 Ohm                        | 82%                    |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V (CMR, CMG)  |

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

Mechanical Characteristics

Temperature

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

Bend Radius

| Installation Min. |
|-------------------|
| 3 in (76 mm)      |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 35 lbs (16 kg) |
| Bulk Cable Weight: | 29 lbs/1000ft  |

Standards and Compliance

|                                  |  |
|----------------------------------|--|
| Environmental Suitability:       | Indoor - Riser, Indoor, Aerial - When supported by messenger wire  |
| Sustainability:                  | CA Prop 65   |
| Flammability / Reaction to Fire: | UL 1666 Riser  |
| CPR Compliance:                  | CPR Euroclass: Eca   |
| NEC / UL Compliance:             | CMR, CL2R  |
| CEC / C(UL) Compliance:          | CMG  |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance:        | UKCA Mark  |
| 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: 0.508 Revision Date: 04-29-2024 |
|----------------------|--|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC          | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 3092F 0101000 | Black | Reel       | 1,000 ft | 612825141396 |          |
| 3092F 0105000 | Black | Reel       | 5,000 ft | 612825141402 | C        |

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