



## Product: [3092F](#)

ControlBus™, Coax RG6, #20 Str BC, PO Ins, QUAD AL Shld, PVC Jkt, High Flex

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### Product Description

ControlBus™, Coax RG6 20AWG (105x40) Bare Copper, PO Insulation, Overall Duofoil®+ Aluminum Braid(60%)+Overall Duofoil®+Aluminum Braid(40%) Shield, PVC Outer Jacket, High Flex

### 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
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#### Physical Characteristics (Overall)

##### Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
20	105x40	BC - Bare Copper	0.04 in	1

Conductor Count: 1

##### Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.183 in

##### Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Bonded Duofoil®	100 %
Braid	2	Aluminum		60 %
Tape	3	Alum / Poly / Alum	Duofoil®	100 %
Braid	4	Aluminum		40 %

##### Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.303 in

#### Electrical Characteristics

##### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
10.5 Ohm/1000ft	3.6 Ohm/1000ft	3.6 Ohm/1000ft

##### Capacitance

Nom. Capacitance Conductor to Shield
17 pF/ft

##### Inductance

Nominal Inductance
0.108 µH/ft

##### Impedance

**Nominal Characteristic Impedance**

100 Ohm

**High Frequency (Nominal/Typical)**

Frequency [MHz]	Nom. Insertion Loss
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 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

**Delay**

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.29 ns/ft	79 %

**High Freq**

Frequency [MHz]	Min. SRL (Structural Return Loss)
1 MHz	23 dB
2 MHz	
5 MHz	
10 MHz	
20 MHz	
50 MHz	
100 MHz	
200 MHz	
300 MHz	
400 MHz	

**Screening**

Frequency [MHz]	Shield Effectiveness	Shield Effectiveness Description
30 MHz	92 dB	Unflexed
30 MHz	60 dB	After 1.5 million flexes

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

**Temperature Range**

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

**Mechanical Characteristics**

Bulk Cable Weight:	40 lbs/1000ft
Max Recommended Pulling Tension:	35 lbs
Min Bend Radius/Minor Axis:	3 in
Min Flexing Radius:	6 in

**Standards**

NEC Articles:	800
NEC/(UL) Specification:	CL2R, CMR
CEC/C(UL) Specification:	CMG
RG Type:	6/U Type

**Applicable Environmental and Other Programs**

EU Directive 2000/53/EC (ELV):	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 CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

## Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Riser
CSA Flammability:	FT4
UL voltage rating:	300 V RMS

## Part Number

### Variants

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

Footnote: C - CRATE REEL PUT-UP.

## Product Notes

Notes: CPE Jacket optional. 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: 0.323 Revision Date: 04-28-2020

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