

## 3092F Coax - ControlNet™ and ControlBus™ Quad Shielded Coax

 For more Information  
 please call

1-800-Belden1

**General Description:**

20 AWG stranded (105x40) bare copper conductor, foam polyethylene insulation, Duobond IV® quad shield (100% coverage), PVC Jacket.

**Physical Characteristics (Overall)****Conductor****AWG:**

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	20	105x40	BC - Bare Copper	1.016

**Total Number of Conductors:** 1
**Insulation****Insulation Material:**

Insulation Material	Dia. (mm)
FPE - Foam Polyethylene	4.6482

**Outer Shield****Outer Shield Material:**

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100.000
2		Braid	AL - Aluminum	60.000
3	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100.000
4		Braid	AL - Aluminum	40.000

**Outer Jacket****Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

**Overall Cable**
**Overall Nominal Diameter:** 7.696 mm
**Mechanical Characteristics (Overall)**

<b>Operating Temperature Range:</b>	-40°C To +75°C
<b>Bulk Cable Weight:</b>	59.528 Kg/Km
<b>Max. Recommended Pulling Tension:</b>	155.687 N
<b>Min. Bend Radius/Minor Axis:</b>	76.200 mm
<b>Min. Flexing Radius:</b>	15.240 cm

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

<b>NEC/(UL) Specification:</b>	CL2R, CMR
<b>CEC/C(UL) Specification:</b>	CMG
<b>EU CE Mark:</b>	Yes
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes

## 3092F Coax - ControlNet™ and ControlBus™ Quad Shielded Coax

EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
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EU Directive 2002/96/EC (WEEE):	Yes
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EU Directive 2003/11/EC (BFR):	Yes
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CA Prop 65 (CJ for Wire & Cable):	Yes
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MII Order #39 (China RoHS):	Yes
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RG Type:	6/U
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## Flame Test

UL Flame Test:	UL1666 Riser
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CSA Flame Test:	FT4
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## Surface Printing (Overall)

## Electrical Characteristics (Overall)

## Nom. Characteristic Impedance:

Impedance (Ohm)

75

## Nom. Inductance:

Inductance (μH/m)

0.354348

## Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

55.777

## Nominal Velocity of Propagation:

VP (%)

79

## Nominal Delay:

Delay (ns/m)

4.23249

## Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

34.4505

## Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

11.8116

## Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100m)

1	1.18116
2	1.54207
5	2.6248
10	3.9372
20	6.562
50	10.4992
100	15.0926
200	21.3265
300	26.248
400	30.5133

## Other Electrical Characteristic 1:

IEEE 802.4 MAP/IEEE 802.7 Mini-Map

## Shield Effectiveness:

Description	Freq. (MHz)	Effectiveness (dB)
Unflexed	30	92
After 1.5 million flexes	30	60

## Minimum Structural Return Loss:

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Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
		5	400	23

## Notes (Overall)

**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).

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3092F 0101000	305 MT	19.958 KG	BLACK		#20 GIFHDLDPPE DBSH PVC
3092F 0105000	1,524 MT	99.791 KG	BLACK	C	#20 GIFHDLDPPE DBSH PVC

**Notes:**

C = CRATE REEL PUT-UP.

## Test Reports

**a) UL**

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

**b) CSA**

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

\* other test data may be available if requested at time of order.

Revision Number: 1      Revision Date: 04-11-2008

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