

## 123092A Coax - ControlNet™ Quad Shielded Coax



For more Information  
please call

1-800-Belden1

**General Description:**

18 AWG solid bare copper-covered steel conductor, foam polyethylene insulation, Duobond IV® quad shield (100% coverage), PVC inner jacket, aluminum interlocked armor, PVC sunlight-resistant outer jacket.

**Usage (Overall)**

**Suitable Applications:** ControlNet™, Modbus II, Industrial Coax

**Physical Characteristics (Overall)****Conductor**

**AWG:**

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	18	Solid	BCCS - Bare Copper Covered Steel	1.016

**Total Number of Conductors:** 1

**Insulation**

**Insulation Material:**

Insulation Material	Dia. (mm)
FPE - Foam Polyethylene	4.572

**Inner Jacket**

**Inner Jacket Material:**

Inner Jacket Material	Nom. Dia. (mm)
PVC - Polyvinyl Chloride	7.569

**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
2		Braid	AL - Aluminum	60
3	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
4		Braid	AL - Aluminum	40

**Outer Jacket**

**Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	1.143

**Armor**

**Armor Type:** Interlocking

**Armor Material:** Aluminum

**Diameter over Armor:** .501

**Overall Cable**

**Overall Nominal Diameter:** 15.011 mm

**Mechanical Characteristics (Overall)**

**Operating Temperature Range:** -40°C To +75°C

**Bulk Cable Weight:** 211.324 Kg/Km

## 123092A Coax - ControlNet™ Quad Shielded Coax

Max. Recommended Pulling Tension:	889.640 N
Min. Bend Radius/Minor Axis:	180.340 mm

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

NEC/(UL) Specification:	CL2, CM
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	10/01/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
RG Type:	6/U

## Flame Test

UL Flame Test:	UL1685 Vertical Tray Flame Test
CSA Flame Test:	FT4

## Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Sunlight Resistance:	Yes

## Plenum/Non-Plenum

Plenum (Y/N):	No
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## Electrical Characteristics (Overall)

## Nom. Characteristic Impedance:

Impedance (Ohm)
75

## Nom. Inductance:

Inductance (μH/m)
0.318257

## Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
53.1522

## Nominal Velocity of Propagation:

VP (%)
82

## Nominal Delay:

Delay (ns/m)
4.19968

## Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
91.868

## Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
11.8116

## Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1	1.14835

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2	1.24678
5	1.47645
10	1.93579
20	2.82166
50	4.49497
100	6.46357
200	9.25242
300	11.4179
400	13.2552

**Max. Operating Voltage - UL:**

<b>Voltage</b>
300 V RMS

**Minimum Structural Return Loss:**

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
		5	50	23

**Notes (Overall)**

**Notes:** ControlNet is a ControlNet International trademark.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
123092A J221000	305 MT	68.039 KG	BLUE, STRONG		3092A ALUM ARMOR PVC
123092A J225000	1,524 MT	360.608 KG	BLUE, STRONG		3092A ALUM ARMOR PVC
123092A 0101000	305 MT	68.039 KG	BLACK		3092A ALUM ARMOR PVC
123092A 0102000	610 MT	140.614 KG	BLACK		3092A ALUM ARMOR PVC

**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.

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