

## 3093A Coax - ControlNet™ Quad Shielded Coax

 For more Information  
 please call

1-800-Belden1

**General Description:**

18 AWG solid bare copper-covered steel conductor, foam FEP insulation, Duobond® IV Quad Shield (100% coverage), fluorocopolymer Jacket.

**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)
FFEP - Foam Fluorinated Ethylene Propylene	4.318

**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
PVDF - Fluorocopolymer

**Overall Cable**
**Overall Nominal Diameter:** 6.960 mm
**Mechanical Characteristics (Overall)**

<b>Operating Temperature Range:</b>	-20°C To +150°C
<b>Non-UL Temperature Rating:</b>	150°C
<b>Bulk Cable Weight:</b>	63.993 Kg/Km
<b>Max. Recommended Pulling Tension:</b>	462.613 N
<b>Min. Bend Radius/Minor Axis:</b>	69.850 mm

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

<b>NEC/(UL) Specification:</b>	CMP
<b>CEC/C(UL) Specification:</b>	CMP FT6
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes
<b>EU RoHS Compliance Date (mm/dd/yyyy):</b>	04/01/2005

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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:	NFPA 262
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**Suitability**

Suitability - Outdoor:	Yes
Suitability - Burial:	Yes

**Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

Impedance (Ohm)
75

**Nom. Inductance:**

Inductance (µH/m)
0.305133

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/m)
53.4803

**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	1.18116
2	1.24678
5	1.6405
10	2.13265
20	3.11695
50	4.9215
100	6.95572
200	9.81019
300	12.0085
400	13.8786

**Minimum Structural Return Loss:**

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

**Notes (Overall)**

**Notes:** Blue available as standard in 1000-ft put-up only. Suitable for Outdoor and Direct Burial applications.

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## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3093A X7E1000	305 MT	18.144 KG	BLUE X7E	C	#18 FFEP DBSH SLF
3093A 0101000	305 MT	18.144 KG	BLACK	C	#18 FFEP DBSH SLF
3093A 0102000	610 MT	36.288 KG	BLACK	C N	#18 FFEP DBSH SLF
3093A 0102500	762 MT	43.091 KG	BLACK	C N	#18 FFEP DBSH SLF
3093A 0105000	1,524 MT	88.451 KG	BLACK	C Z	#18 FFEP DBSH SLF

**Notes:**

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

## 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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