# **Detailed Specifications & Technical Data**

### METRIC MEASUREMENT VERSION





### 3093A Coax - ControlNet™ Quad Shielded Coax

For more Information please call

1-800-Belden1



## **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:

### 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)**

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

### **Applicable Specifications and Agency Compliance (Overall)**

### **Applicable Standards & Environmental Programs**

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

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Yes
Yes
Yes
Yes
6/U
NFPA 262
Yes
Yes

### **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:



Nominal Velocity of Propagation:



**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	С	#18 FFEP DBSH SLF
3093A 0101000	305 MT	18.144 KG	BLACK	С	#18 FFEP DBSH SLF
3093A 0102000	610 MT	36.288 KG	BLACK	CN	#18 FFEP DBSH SLF
3093A 0102500	762 MT	43.091 KG	BLACK	CN	#18 FFEP DBSH SLF

#### Notes:

C = CRATE REEL PUT-UP.

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

Revision Number: 1 Revision Date: 05-14-2007

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