



Product: [3094A](#)

ControlBus™, Coax RG11, #14 Sol BCCS, PO Ins, QUAD AL Shld, PVC Jkt, CMR

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Product Description

ControlBus™, Coax RG11 14AWG (Solid) Bare Copper Covered Steel, PO Insulation, Overall Duofoil®+ Aluminum Braid(60%)+Overall Duofoil®+Aluminum Braid(40%) Shield, PVC Outer Jacket, CMR

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
14	Solid	BCCS - Bare Copper Covered Steel	0.064 in	1

Conductor Count:	1
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Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.28 in

Table Notes:	Gas Injected
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Color Chart

Number
Pair
Ground

Inner Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.407 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Bonded Duofoil®	100.0%
Braid	2	Aluminum		60.0%
Tape	3	Alum / Poly / Alum	Duofoil®	100%
Braid	4	Aluminum		40%

Table Notes:	Tape is bonded to dielectric
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Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.0407 in
	0.407 in

Construction and Dimensions

Armor

Type of Armor	Material
Interlocked Armor	Aluminum

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
11 Ohm/1000ft	1.5 Ohm/1000ft	1.5 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.2 pF/ft

Inductance

Nominal Inductance
0.097 μ H/ft

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
75 Ohm	\pm 3 Ohm

Return Loss (RL)

Frequency [MHz]	Min. Structural Return Loss (SRL)
5-400 MHz	20 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.16 dB/100ft
2 MHz	0.18 dB/100ft
5 MHz	0.26 dB/100ft
10 MHz	0.38 dB/100ft
20 MHz	0.55 dB/100ft
50 MHz	0.83 dB/100ft
100 MHz	1.17 dB/100ft
200 MHz	1.60 dB/100ft
300 MHz	1.99 dB/100ft
400 MHz	2.30 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.24 ns/ft	82.0%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
1 MHz	0.33 dB/100ft
2 MHz	0.35 dB/100ft
5 MHz	0.44 dB/100ft
10 MHz	0.66 dB/100ft
20 MHz	0.78 dB/100ft
50 MHz	0.99 dB/100ft
100 MHz	1.32 dB/100ft
200 MHz	1.87 dB/100ft
300 MHz	2.29 dB/100ft
400 MHz	2.64 dB/100ft

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	59 lbs/1000ft
Max. Pull Tension:	40 lbs
Min Bend Radius/Minor Axis:	4.25 in

Standards

NEC Articles:	Article 725, Article 800
NEC/(UL) Compliance:	CL2R, CMR
CEC/C(UL) Compliance:	CMG
RG Type:	11/U Type

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	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 RoHS Compliance Date (yyyy-mm-dd):	2012-01-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - When supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL 1666 Riser
CSA Flammability:	FT4
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	3095A

Part Number

Variants

Item #	Color	Putup Type	Length	UPC
3094A F2V500	Gray, DEC	Reel	500 ft	612825141525
3094A F2V1000	Gray, DEC	Reel	1,000 ft	612825141501
3094A F2V2000	Gray, DEC	Reel	2,000 ft	612825141518

Footnote:	C - CRATE REEL PUT-UP.
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Product Notes

Notes:	Tap marks every 2.6 Meters to aid users in installation.
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History

Update and Revision:	Revision Number: 0.330 Revision Date: 06-01-2020
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