



**Product:** [3095A](#)

ControlBus™, Coax RG11, #14 Sol BCCS, FEP Ins, QUAD AL Shld, PVDF Jkt, CMP

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### Product Description

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

### 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
FEP - Fluorinated Ethylene Propylene (Foam)	0.28 in

##### Outer Shield

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Tri-Laminate (Alum+Poly+Alum)	Duofoil®	100%
Braid	2	Aluminum		60%
Tape	3	Tri-Laminate (Alum+Poly+Alum)	Duofoil®	100%
Braid	4	Aluminum		40%

##### Outer Jacket

Material	Nominal Diameter
PVDF - Polyvinylidene Fluoride	0.387 in

#### Electrical Characteristics

##### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
11 Ohm/1000ft	3.9 Ohm/1000ft	3.9 Ohm/1000ft

##### Capacitance

Nom. Capacitance Conductor to Shield
16.5 pF/ft

##### Inductance

Nominal Inductance
0.097 μH/ft

##### Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
100 Ohm	± 3 Ohm

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.17 dB/100ft
2 MHz	0.22 dB/100ft
5 MHz	0.28 dB/100ft
10 MHz	0.4 dB/100ft
20 MHz	0.6 dB/100ft
50 MHz	1.2 dB/100ft
100 MHz	1.7 dB/100ft
200 MHz	2.5 dB/100ft
300 MHz	3.04 dB/100ft
400 MHz	3.5 dB/100ft

#### Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.2 ns/ft	82%

#### Phase Delay Distortion

f/B	%PDD/100M (5MB)
0.5	-0.6
1	-0.46
1.5	0
2	0.17
2.5	0.3

#### High Frequency

Frequency [MHz]	Min. SRL (Structural Return Loss)
1 MHz	20 dB
2 MHz	
5 MHz	
10 MHz	
20 MHz	
50 MHz	
100 MHz	
200 MHz	
300 MHz	
400 MHz	

#### Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Tilt 5 to 10 MHz: .42 dB/100 M
Other Electrical Characteristic 2:	Tilt 10 to 20 MHz: .58 dB/100 M
Other Electrical Characteristic 3:	SLR Min. 20dB (5MHz - 50MHz)

#### Temperature Range

UL Temp Rating:	150°C
Operating Temperature Range:	-20°C To +150°C

#### Mechanical Characteristics

Bulk Cable Weight:	68 lbs/1000ft
Max. Pull Tension:	309 lbs
Min. Bend Radius/Minor Axis:	4 in

#### Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CMP
CEC/C(UL) Compliance:	CMP

RG Type:	11
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## Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Burial:	Yes
Suitability - Outdoor:	Yes

## Flammability, LSOH, Toxicity Testing

UL Flammability:	NFPA 262
CSA Flammability:	FT6
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	Yes
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## Related Part Numbers

Non-Plenum Number:	3094A
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## Product Notes

Notes:	Sweep tested 5 to 400 MHz. Tap marks every 2.6 meters to aid users in installation.
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## History

Update and Revision:	Revision Number: 0.307 Revision Date: 04-29-2024
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