

Product: [3093A](#)



ControlBus™, Coax RG6, #18 Sol BCCS, FEP Ins, QUAD AL Shld, PVDF Jkt, CMP High Temp 150C

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Product Description

ControlBus™, Coax RG6 18AWG (Solid) Bare Copper Covered Steel, FEP Insulation, Overall Duofoil®+ Aluminum Braid(60%)+Overall Duofoil®+Aluminum Braid(40%) Shield, PVDF Outer Jacket, CMP High Temp 150C

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
18	Solid	BCCS - Bare Copper Covered Steel	0.04 in	1

Conductor Count: 1

Insulation

Material	Nominal Diameter
FEP - Fluorinated Ethylene Propylene (Foam)	0.17 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Bonded Duofoil®	100 %
Braid	2	Aluminum		60 %
Tape	3	Alum / Poly / Alum	Duofoil®	100 %
Braid	4	Aluminum		40 %

Outer Jacket Material

Material	Nominal Diameter
PVDF - Polyvinylidene Fluoride	0.274 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
28 Ohm/1000ft	3.6 Ohm/1000ft	3.6 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.3 pF/ft

Inductance

Nominal Inductance
0.093 µH/ft

Impedance

Nominal Characteristic Impedance

100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.36 dB/100ft
2 MHz	0.38 dB/100ft
5 MHz	0.5 dB/100ft
10 MHz	0.65 dB/100ft
20 MHz	0.95 dB/100ft
50 MHz	1.5 dB/100ft
100 MHz	2.12 dB/100ft
200 MHz	2.99 dB/100ft
300 MHz	3.66 dB/100ft
400 MHz	4.23 dB/100ft

Delay

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

High Freq

Frequency [MHz]	Min. SRL (Structural Return Loss)
1 MHz	23 dB
2 MHz	
5 MHz	
10 MHz	
20 MHz	
50 MHz	
100 MHz	
200 MHz	
300 MHz	
400 MHz	

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	43 lbs/1000ft
Max Recommended Pulling Tension:	104 lbs
Min Bend Radius/Minor Axis:	2.75 in

Standards

NEC Articles:	800
NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
RG Type:	6/U Type

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	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):	2005-04-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Burial:	Yes
Suitability - Outdoor:	Yes

Flammability, LS0H, Toxicity Testing

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

Plenum/Non-Plenum

Plenum (Y/N):	Yes
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Part Number

Non-Plenum Number:	3092A
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Variants

Item #	Color	Putup Type	Length	UPC
3093A 0101000	Black	Reel	1,000 ft	612825141464
3093A 0102500	Black	Reel	2,500 ft	612825141488
3093A 0105000	Black	Reel	5,000 ft	612825141495

Footnote: C - CRATE REEL PUT-UP.

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

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

Product Notes

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

Update and Revision:	Revision Number: 0.319 Revision Date: 04-28-2020
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