



Product: [3132A](#)

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

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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

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				
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	0.274 in

Electrical Characteristics

Conductor DCR		
Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
28 Ohm/1000ft	7.2 Ohm/1000ft	7.2 Ohm/1000ft

Capacitance	
Nom. Capacitance Conductor to Shield	
16.3 pF/ft	

Inductance	
Nominal Inductance	
0.093 µH/ft	

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
100 Ohm	± 3 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.36 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) [%]
1.2 ns/ft	82%

Phase Delay Distortion

f/B	%PDD/100M (5MB)
0.5	-0.54
1	-0.19
1.5	0
2	0.16
2.5	0.3

High Frequency

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	

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Tilt 5 to 10 MHz: .48 dB/100 M
Other Electrical Characteristic 2:	Tilt 10 to 20 MHz: .93 dB/100 M
Other Electrical Characteristic 3:	Sweep Tested 5 to 400MHz.

Temperature Range

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

Mechanical Characteristics

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

Standards

NEC/(UL) Compliance:	CMP
CEC/C(UL) Compliance:	CMP
RG Type:	6

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)
EU CE Mark:	Yes
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:	3131A
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Variants

Item #	Color	Put-Up Type	Length	UPC
3132A F2V1000	Gray, DEC	Reel	1,000 ft	612825142065

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

Notes:	Tap Marks Every 2.6 Meters to aid in users installation.
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History

Update and Revision:	Revision Number: 0.416 Revision Date: 04-29-2024
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