



Product: [3131A](#)

ControlBus™, Coax RG6, #18 Sol BCCS, PO Ins, QUAD AL Shld, PVC Jkt, CMR

[Request Sample](#)

Product Description

ControlBus™, Coax RG6 18AWG (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
------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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
PE - Polyethylene (Foam)	0.18 in

Table Notes:	Gas Injected
--------------	--------------

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.301 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
16.2 pF/ft

Inductance

Nominal Inductance
0.097 μH/ft

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
120 Ohm	± 3 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.35 dB/100ft
2 MHz	0.38 dB/100ft
5 MHz	0.45 dB/100ft
10 MHz	0.59 dB/100ft
20 MHz	0.86 dB/100ft
50 MHz	1.37 dB/100ft
100 MHz	1.97 dB/100ft
200 MHz	2.82 dB/100ft
300 MHz	3.48 dB/100ft
400 MHz	4.04 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	-1.03
1	-0.3
1.5	0
2	0.2
2.5	0.4

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	

Electrical Characteristics Notes:	Tilt 5 to 10 MHz: 0.53 dB/100 M
Other Electrical Characteristic 2:	Tilt 10 to 20 MHz: 0.89 dB/100 M
Other Electrical Characteristic 3:	SRL Min. 23dB (5MHz - 50MHz)

Temperature Range

UL Temp Rating:	75°C
Operating Temp Range:	-30°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	33 lbs/1000ft
Max. Pull Tension:	162 lbs
Min Bend Radius/Minor Axis:	3 in

Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CL2R, CMR
CEC/C(UL) Compliance:	CMG
IEEE Compliance:	802.4 MAP, 802.7 Mini-MAP
RG Type:	6/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 CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1666 Riser
CSA Flammability:	FT4
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	3132A

Part Number

Variants

Item #	Color	Putup Type	Length	UPC
3131A F2V1000	Gray, DEC	Reel	1,000 ft	612825142058

Product Notes

Notes:	Sweep tested 5 to 400 MHz. Tap Marks Every 2.6 Meters to aid in users installation.
--------	-------------------------------------------------------------------------------------

History

Update and Revision:	Revision Number: 0.318 Revision Date: 06-24-2020
----------------------	--------------------------------------------------

© 2020 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Coaxial Cables](#) category:

Click to view products by [Belden](#) manufacturer:

Other Similar products are found below :

[89880-003-1000](#) [633948-877-1000](#) [CY2389-000](#) [8213-010-1000](#) [8221-010-U1000](#) [8233-010-1000](#) [88281-010-500](#) [1322R-010-1000](#) [177799-000](#) [1807A-B59-U1000](#) [9167-010-1000](#) [9251-010-1000](#) [9275-010-U1000](#) [935240-000](#) [9659-010-1000](#) [980704-001](#) [CF2823-000](#) [33312-010-500](#) [CZ1589-000](#) [5022W0809-0CS3263](#) [10610-4-4](#) [EF8108-000](#) [1673B TIN100](#) [672525-001](#) [144517-000](#) [8-1616396-1](#) [8263-010-U1000](#) [8263 010U500](#) [8268-010-500](#) [8262 010U1000](#) [7915A 009U1000](#) [5024A1311-0](#) [TRC-75-1](#) [1281S5 010250](#) [1281S5 000250](#) [1530A 010U1000](#) [1505A 0081000](#) [9248 010U1000](#) [CO-142BNCX200-001](#) [7809WB 010500](#) [9244 0101000](#) [1694A 0081000](#) [9204 0101000](#) [8241F J5C1000](#) [1530A 0101000](#) [1674A TIN50](#) [7915A 0091000](#) [7915A 010500](#) [TWCH-78-2](#) [TWC-78-1](#)