Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

9231 Coax - RG-59/U Type

For more Information please call

1-800-Belden1



General Description:

20 AWG solid .031" bare copper conductor, polyethylene insulation, tinned copper braid shields (95% coverage), PVC jacket.

coverage), r vo jackel.	
Physical Characteristics (Overall)	
Conductor	
AWG: # Coax AWG Stranding Conductor Material Dia. (in.)	
# Coax Awg Stranding Conductor Material Dia. (iii.) 1 20 Solid BC - Bare Copper .031	
Total Number of Conductors:	1
Insulation Insulation Material:	
Insulation MaterialDia. (in.)PE - Polyethylene.198	
Outer Shield Outer Shield Material:	
Layer # TypeOuter Shield MaterialCoverage (%)1BraidTC - Tinned Copper95.0002BraidTC - Tinned Copper95.000	
Outer Jacket Outer Jacket Material:	
Outer Jacket Material PVCNC - Polyvinyl Chloride Non-Contaminating	
Overall Cable	
Overall Nominal Diameter:	0.305 in.
Mechanical Characteristics (Overall)	
Operating Temperature Range:	-40°C To +60°C
UL Temperature Rating:	60°C
Bulk Cable Weight:	71 lbs/1000 ft.
Max. Recommended Pulling Tension:	168 lbs.
Min. Bend Radius/Minor Axis:	3 in.
Min. Bend Radius (Continuous Flexing):	6 in.
Applicable Specifications and Agency Com	poliance (Overall)
Applicable Standards & Environmental Program	
Applicable Standards & Environmental Program NEC/(UL) Specification:	
	ms
NEC/(UL) Specification:	ms CMH
NEC/(UL) Specification: CEC/C(UL) Specification:	ms СМН СМН
NEC/(UL) Specification: CEC/C(UL) Specification: EU Directive 2011/65/EU (ROHS II):	ms CMH CMH Yes

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



9231 Coax - RG-59/U Type

EU Directive							
	e 2002/95/EC (RoHS):	Yes					
EU RoHS C	ompliance Date (mm/dd/yyyy):	10/01/2005					
EU Directiv	e 2002/96/EC (WEEE):	Yes					
	e 2003/11/EC (BFR):	Yes					
	(CJ for Wire & Cable):	Yes					
	39 (China RoHS):	Yes					
RG Type:		59/U					
lame Test							
UL Flame T	est:	UL1685 UL Loading, VW-1					
uitability							
Suitability -	Indoor:	Yes					
Suitability -	Outdoor:	Yes					
Suitability -	Aerial:	Yes - When supported by a messenger wire					
Plenum/Non-P	Plenum						
Plenum (Y/N	N):	No					
lom. Character	aracteristics (Overall) istic Impedance:						
Impedance (Of	(mn)						
75							
om. Inductanc	e:						
Inductance (µH	l/ft)						
Inductance (µH 0.118	l/ft)						
0.118							
0.118 Iom. Capacitan	ce Conductor to Shield:						
0.118	ce Conductor to Shield:						
0.118 Iom. Capacitan Capacitance (p 21	nce Conductor to Shield: pF/ft)						
0.118 Nom. Capacitan Capacitance (p 21 Nominal Velocit	ce Conductor to Shield:						
0.118 Jom. Capacitan Capacitance (p 21	nce Conductor to Shield: pF/ft)						
0.118 Iom. Capacitan Capacitance (p 21 Iominal Velocit VP (%) 66	nce Conductor to Shield: pF/ft)						
0.118 Iom. Capacitan Capacitance (p 21 Iominal Velocit VP (%) 66	nce Conductor to Shield: pF/ft)						
0.118 Nom. Capacitan Capacitance (p 21 Nominal Velocit VP (%) 66 Nominal Delay:	nce Conductor to Shield: pF/ft)						
0.118 Iom. Capacitan Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54	nce Conductor to Shield: pF/ft)						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C	r DC Resistance:						
0.118 Iom. Capacitan Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto	r DC Resistance:						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9	r DC Resistance:						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C	r DC Resistance:						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1	r DC Resistance: Dhm/1000 ft) Shield DC Resistance:						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1	r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft)						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1 Iom. Attenuation Freq. (MHz) Att	r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft)						
0.118 om. Capacitance (p 21 ominal Velocit VP (%) 66 ominal Delay: Delay (ns/ft) 1.54 om. Conducto DCR @ 20°C (C 9.9 ominal Outer S DCR @ 20°C (C 1.1	r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Shield DC Resistance:						
0.118 om. Capacitance (p 21 ominal Velocit VP (%) 66 ominal Delay: Delay (ns/ft) 1.54 om. Conducto DCR @ 20°C (C 9.9 ominal Outer S DCR @ 20°C (C 1.1 om. Attenuatic Freq. (MHz) Att 1 0.3	r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Shield DC Resistance:						
0.118 om. Capacitance (p 21 ominal Velocit VP (%) 66 ominal Delay: Delay (ns/ft) 1.54 om. Conducto DCR @ 20°C (C 9.9 ominal Outer S DCR @ 20°C (C 1.1 om. Attenuatic Freq. (MHz) Att 1 0.3 3.6 0.5 10 0.8 71.5 2.0	r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Shield DC R						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1 Iom. Attenuatic Freq. (MHz) Att 1 0.3 3.6 0.5 10 0.8 71.5 2.0 135 3.5	r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Shield Shield Shi						
0.118 Om. Capacitance (p 21 Ominal Velocit VP (%) 66 Ominal Delay: Delay (ns/ft) 1.54 Om. Conducto DCR @ 20°C (C 9.9 Ominal Outer S DCR @ 20°C (C 1.1 Om. Attenuatic Freq. (MHz) Att 1 0.3 3.6 0.5 10 0.6 71.5 2.0 135 3.5 270 4.3	r DC Resistance: Dhm/1000 ft) Shield State						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1 Iom. Attenuatic Freq. (MHz) Att 1 0.3 3.6 0.5 10 0.6 71.5 2.0 135 3.5 270 4.3 360 5.0	cce Conductor to Shield: DF/ft) cy of Propagation: r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) con: tenuation (dB/100 ft.) 3 3 3 3 3 4 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1 Iom. Attenuatic Freq. (MHz) Att 1 0.3 3.6 0.5 10 0.6 71.5 2.0 135 3.5 270 4.3	cce Conductor to Shield: DF/ft) cy of Propagation: r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) on: tenuation (dB/100 ft.) 3 3 3 4 5 3 5 3 5 3 5 3 5 3 5 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5						
0.118 Iom. Capacitance (p 21 Iominal Velocit VP (%) 66 Iominal Delay: Delay (ns/ft) 1.54 Iom. Conducto DCR @ 20°C (C 9.9 Iominal Outer S DCR @ 20°C (C 1.1 Iom. Attenuation Freq. (MHz) Att 1 0.3 3.6 0.5 10 0.6 71.5 2.0 135 3.5 270 4.3 360 5.0 540 6.2	cce Conductor to Shield: wF/ft) y of Propagation: r DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Shield DC Resistance: Dhm/1000 ft) Child DC Resistance: Child DC Resist						



Max. Operating Voltage - UL:

Voltage

300 V RMS

Max. Operating Voltage - Non-UL:

Voltage 1700 V RMS

Other Electrical Characteristic 1: Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination. 75 +/- 1.5 Ohms Return Loss tested in accordance with ASTM D-4566 paragraph 45.3, using a **Other Electrical Characteristic 2:** 75 ohm fixed bridge and termination. 720A Series is available by special request. Minimum Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
5	216	27
217	850	23

Sweep Test

Sweep Testing:

100% sweep tested. 5 Mhz to 850 MHz.

Notes (Overall)

Notes: Non-Plenum versions comply with Telcordia Specification GR-139-CORE.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9231 0081000	1,000 FT	76.000 LB	GRAY	С	#20 PE DBL BRD PVC
9231 008500	500 FT	39.000 LB	GRAY		#20 PE DBL BRD PVC

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 08-24-2012

© 2013 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 herein 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 "AS IS" 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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure 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. This Product Disclosure is not to be considered a warrate or guidance. Begulatory information is for guidance on purpose only. Breduct users are responsible for 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. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.