



Product: [9165](#)

Composite ENG, EFP and CCTV



Product Description

Composite, RG-59 22 AWG BC Coax, stranded (7x30), BC braid 95% coverage, 3 PR 22 AWG TC, stranded (7x30), w/drain wire, PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs	No. of Coax
22	7x30	BC - Bare Copper	0.03 in		1
22	7x30	TC - Tinned Copper	0.029 in	3	

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.146 in
PVC - Polyvinyl Chloride	0.054 in

Color Chart

Number	Color
1	Black and Red
2	Orange and Brown
3	Green and White

Inner Shield

Type	Material	Material Trade Name	Coverage [%]	Drainwire Diameter	Drainwire AWG	Drainwire Construction n x D
Braid	Bare Copper (BC)	Beldfoil® (Z-Fold®)	95%	0.03 in	22	7x30
Tape	Bi-Laminate (Alum+Poly)		100%			

Outer Shield

Type	Layer	Material	Coverage [%]
Braid	1	Bare Copper (BC)	95%

Outer Jacket

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.290 x 0.561 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Conductor DCR	Conductor Resistance	Nominal Inner Shield DCR	Outer Conductor DCR
15.0 Ohm/1000ft	15 Ohm/1000ft		2.6 Ohm/1000ft	2.6 Ohm/1000ft
	11 Ohm/1000ft			

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
51 pF/ft	17.3 pF/ft

Inductance

Nominal Inductance
0.09 µH/ft

Impedance

Nominal Characteristic Impedance
75 Ohm
35 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.3 dB/100ft
5 MHz	0.7 dB/100ft
10 MHz	1 dB/100ft
50 MHz	2.1 dB/100ft
100 MHz	3 dB/100ft
400 MHz	7.4 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.3 ns/ft	78%
	58%

Voltage

UL Voltage Rating
30 V RMS

Temperature Range

Non-UL Temp Rating:	60°C
Operating Temperature Range:	-30°C To +60°C

Mechanical Characteristics

Bulk Cable Weight:	85 lbs/1000ft
Max. Pull Tension:	147 lbs
Min. Bend Radius/Minor Axis:	3 in

Standards

NEC/(UL) Compliance:	CL2X
UL AWM Style Compliance:	AWM 20006
RG Type:	59

Applicable Environmental and Other Programs

Environmental Space:	Outdoor - Aerial
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	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:	Yes
EU CE Mark:	No
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

Flammability, LSOH, Toxicity Testing

UL voltage rating:	30 V RMS
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
9165 010500	Black	Reel	500 ft	612825225058
9165 0101000	Black	Reel	1,000 ft	612825225041

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

Notes:	Siamese Type Construction. Coax jacket diameter: .240 in. Pairs jacket diameter: .290 in.
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History

Update and Revision:	Revision Number: 0.282 Revision Date: 04-29-2024
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