



Part Number: 123092A

ControlNet™, (1) 18 AWG Solid BCCS, FPE/PVC/PVC, Foil+TC Braid Shld, Alum Armor, CM

Product Description

One 18 AWG solid bare copper-covered steel conductor, foam polyethylene insulation, Duobond IV® quad shield (100% coverage), PVC inner jacket, aluminum interlocked armor, PVC outer jacket.

Product Specifications

Technical Specifications

Suitable Applications:	ControlNet™, Modbus II, Industrial Coax
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Construction and Dimensions

Conductor:

AWG	Stranding	Material	Nominal Diameter	No. of Coax
18	Solid	BCCS - Bare Copper Covered Steel	0.04 in	1

Total Number of Conductors:	1
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Insulation:

Material	Nominal Diameter
FPE - Foam Polyethylene	0.18 in

Innerjacket:

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.298 in

Outershield 1:

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	Bonded Duofoil®	100 %
Braid	2	AL - Aluminum		60 %
Tape	3	Aluminum Foil-Polyester Tape-Aluminum Foil	Duofoil®	100 %
Braid	4	AL - Aluminum		40 %

Outerjacket 1:

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.591 in	0.045 in

Armor:

Type of Armor	Material	Diameter over Armoring
Interlocked Armor	Aluminum	0.501 mm

Electrical Characteristics

Conductor DCR:

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

Capacitance:

Nom. Capacitance Conductor to Shield
16.2 pF/ft

Impedance:

Nominal Characteristic Impedance
75 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) [%]
1.28 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	
5 MHz	
50 MHz	

Inductance:

Nominal Inductance
0.097 μ H/ft

Voltage:

UL Voltage Rating
300 V RMS

Use

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes
Max Recommended Pulling Tension:	200 lbs

Safety

CSA Flammability:	FT4
UL Flammability:	UL1685 Vertical Tray Flame Test

Temperature Range

Operating Temp Range:	-40°C To +75°C
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Mechanical Characteristics

Min Bend Radius/Minor Axis:	7.1 in
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Part Number

Plenum (Y/N):	No
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Standards

CA Prop 65 (CJ for Wire & Cable):	CA Prop 65 (CJ for Wire & Cable)
MII Order #39 (China RoHS):	MII Order #39 (China RoHS)
NEC/(UL) Specification:	NEC/(UL) Specification
RG Type:	RG Type
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)

History

Notes:	ControlNet is a ControlNet International trademark.
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Product Variants

Part Number	Color	Put-Up Type	Length
123092A 0101000	BLACK	Reel	1000 ft
123092A 0102000	BLACK	Reel	2000 ft
123092A J221000	BLUE, STRONG	Reel	1000 ft
123092A J225000	BLUE, STRONG	Reel	5000 ft

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