



Part Number: 123092A

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

[Request Sample](#)

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.

Technical Specifications

Product Overview

Suitable Applications:	ControlNet™, Modbus II, Industrial Coax
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
18	Solid	BCCS - Bare Copper Covered Steel	0.0403 in	1
Conductor Count:		1		
Conductor Size:		18 AWG		

Insulation

Material	Nominal Diameter
FPE - Foamed Polyethylene	0.178 in

Inner Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.298 in

Outer Shield Material

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

Outer Jacket Material

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

Construction and Dimensions

Armor

Type of Armor	Material
Interlocked Armor	Aluminum

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 μ H/ft

Impedance

Nominal Characteristic Impedance
100 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	

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	SRL Minimum 23dB (5MHz - 50MHz)
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Temperature Range

UL Temp Rating:	75°C
Operating Temp Range:	-40°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	142 lbs/1000ft
Max Recommended Pulling Tension:	200 lbs
Min Bend Radius/Minor Axis:	7.1 in

Standards

NEC Articles:	800
NEC/(UL) Specification:	CL2, CM
CEC/C(UL) Specification:	CMG, HL
RG Type:	6/U Type

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	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 RoHS Compliance Date (yyyy-mm-dd):	2005-10-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Hazardous Locations:	Yes
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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