



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
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# Customer Specification

## PART NO. 5110/80C

Construction

		Diameters (In)
1) Component 1	80 X 1 COND	
a) Conductor	22 (7/30) AWG Tinned Copper	0.030
b) Insulation	0.010" Wall, Nom. PVC, Semi Rigid	0.050
(1) Color Code	Alpha Wire Color Code E	

Cond	Color	Cond	Color	Cond	Color
1	BLACK	28	WHITE/BROWN/RED	55	WHITE/VIOLET/SLATE
2	BROWN	29	WHITE/BROWN/ORANGE	56	WHITE/BLACK/BROWN/RED
3	RED	30	WHITE/BROWN/YELLOW	57	WHITE/BLACK/BROWN/ORANGE
4	ORANGE	31	WHITE/BROWN/GREEN	58	WHITE/BLACK/BROWN/YELLOW
5	YELLOW	32	WHITE/BROWN/BLUE	59	WHITE/BLACK/BROWN/GREEN
6	GREEN	33	WHITE/BROWN/VIOLET	60	WHITE/BLACK/BROWN/BLUE
7	BLUE	34	WHITE/BROWN/SLATE	61	WHITE/BLACK/BROWN/VIOLET
8	VIOLET	35	WHITE/RED/ORANGE	62	WHITE/BLACK/BROWN/SLATE
9	SLATE	36	WHITE/RED/YELLOW	63	WHITE/BLACK/RED/YELLOW
10	WHITE	37	WHITE/RED/GREEN	64	WHITE/BLACK/RED/GREEN
11	WHITE/BLACK	38	WHITE/RED/BLUE	65	WHITE/BLACK/RED/BLUE
12	WHITE/BROWN	39	WHITE/RED/VIOLET	66	WHITE/BLACK/RED/VIOLET
13	WHITE/RED	40	WHITE/RED/SLATE	67	WHITE/BLACK/RED/SLATE
14	WHITE/ORANGE	41	WHITE/ORANGE/YELLOW	68	WHITE/BLACK/ORANGE/YELLOW
15	WHITE/YELLOW	42	WHITE/ORANGE/GREEN	69	WHITE/BLACK/ORANGE/GREEN
16	WHITE/GREEN	43	WHITE/ORANGE/BLUE	70	WHITE/BLACK/ORANGE/BLUE
17	WHITE/BLUE	44	WHITE/ORANGE/VIOLET	71	WHITE/BLACK/ORANGE/VIOLET

18	WHITE/VIOLET	45	WHITE/ORANGE/SLATE	72	WHITE/BLACK/ORANGE/SLATE
19	WHITE/SLATE	46	WHITE/YELLOW/GREEN	73	WHITE/BLACK/YELLOW/GREEN
20	WHITE/BLACK/BROWN	47	WHITE/YELLOW/BLUE	74	WHITE/BLACK/YELLOW/BLUE
21	WHITE/BLACK/RED	48	WHITE/YELLOW/VIOLET	75	WHITE/BLACK/YELLOW/VIOLET
22	WHITE/BLACK/ORANGE	49	WHITE/YELLOW/SLATE	76	WHITE/BLACK/YELLOW/SLATE
23	WHITE/BLACK/YELLOW	50	WHITE/GREEN/BLUE	77	WHITE/BLACK/GREEN/BLUE
24	WHITE/BLACK/GREEN	51	WHITE/GREEN/VIOLET	78	WHITE/BLACK/GREEN/VIOLET
25	WHITE/BLACK/BLUE	52	WHITE/GREEN/SLATE	79	WHITE/BLACK/GREEN/SLATE
26	WHITE/BLACK/VIOLET	53	WHITE/BLUE/VIOLET	80	WHITE/BLACK/BLUE/VIOLET
27	WHITE/BLACK/SLATE	54	WHITE/BLUE/SLATE		
2) Cable Assembly		80 Components Cabled			
a) Twists:		1.9 Twists/foot (min)			
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER			
c) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.			
3) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		22 (7/30) AWG Tinned Copper			
b) Braid		Tinned Copper, 70% Coverage, Min.			
4) Jacket		0.053" Wall, Nom., PVC		0.665 (0.698 Max.)	
a) Color(s)		Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White			
b) Ripcord		1 End 810 Denier Nylon			
c) Print		ALPHA WIRE-* P/N 5110/80C 80C 22 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C OR AWM 2464 80C 300V OR AWM 21894 105C 300V SUN RES 60C OIL VW-1 --- LLXXXXXX CSA 105C TYPE CMG FT4 CE ROHS (SEQ FOOTAGE) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

## Applicable Specifications

1) UL		
a) Component 1	AWM/STYLE 10002	105°C / 300 V <sub>RMS</sub>
b) Overall	AWM/STYLE 21894	105°C / 300 V <sub>RMS</sub>
	SUN RES	
	60C OIL	
	AWM/STYLE 2464	80°C / 300 V <sub>RMS</sub>
	CM	105°C
	VW-1	
2) CSA International	CMG	105°C
	FT4	
3) IEC	EN 60332-1 Flame Behavior	
	EN 60332-2 Flame Behavior	
4) CE:	EU Low Voltage Directive 2014/35/EC	

## Environmental

1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015 . No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for RoHS C of C.
2) REACH Regulation (EC 1907/2006):	
	This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see Alpha's REACH SVHC Declaration.
3) California Proposition 65:	
	Exempt from warning labels based on the Consent Judgment. Please see Alpha's CA Prop 65 Statement for more information.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-35 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	459 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	36 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	65 pF/ft @1 kHz, Nominal
4) Inductance	0.18 µH/ft, Nominal
5) Conductor DCR	16.6 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	1.2 Ω/1000ft @20°C, Nominal

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	16 x 11 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5110/80C

5110/80C , RoHS-Compliant Commencing With 8/1/2005 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014.

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.01% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm )
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) ,	
Including Deca-BDE	0.1% by weight (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% by weight (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% by weight (1000 ppm)
Dibutyl phthalate (DBP)	0.1% by weight (1000 ppm)
Diisobutyl phthalate (DIBP)	0.1% by weight (1000 ppm)

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA

9/12/2019

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