



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

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# Customer Specification

## PART NO. 5160/60C

Construction

		Diameters (In)
1) Component 1	60 X 1 COND	
a) Conductor	20 (7/28) AWG Tinned Copper	0.038
b) Insulation	0.016" Wall, Nom. PVC	0.070
(1) Color Code	Alpha Wire Color Code D	

Cond	Color	Cond	Color	Cond	Color
1	BLACK	21	WHITE/BROWN	41	WHITE/GREEN/RED
2	RED	22	WHITE/ORANGE	42	WHITE/GREEN/GREEN
3	WHITE	23	WHITE/SLATE	43	WHITE/GREEN/BLUE
4	GREEN	24	WHITE/VIOLET	44	WHITE/GREEN/BROWN
5	ORANGE	25	WHITE/BLACK/RED	45	WHITE/GREEN/VIOLET
6	BLUE	26	WHITE/BLACK/GREEN	46	WHITE/BLUE/BLACK
7	BROWN	27	WHITE/BLACK/YELLOW	47	WHITE/BLUE/RED
8	YELLOW	28	WHITE/BLACK/BLUE	48	WHITE/BLUE/GREEN
9	VIOLET	29	WHITE/BLACK/BROWN	49	WHITE/BLUE/BLUE
10	SLATE	30	WHITE/BLACK/ORANGE	50	WHITE/BLUE/BROWN
11	PINK	31	WHITE/BLACK/SLATE	51	WHITE/BLUE/VIOLET
12	TAN	32	WHITE/BLACK/VIOLET	52	WHITE/BROWN/BLACK
13	RED/GREEN	33	WHITE/BLACK/BLACK	53	WHITE/BROWN/RED
14	RED/YELLOW	34	WHITE/RED/BLACK	54	WHITE/BROWN/GREEN
15	RED/BLACK	35	WHITE/RED/RED	55	WHITE/BROWN/BLUE
16	WHITE/BLACK	36	WHITE/RED/GREEN	56	WHITE/BROWN/BROWN
17	WHITE/RED	37	WHITE/RED/BLUE	57	WHITE/BROWN/VIOLET
18	WHITE/GREEN	38	WHITE/RED/BROWN	58	WHITE/VIOLET/RED
19	WHITE/YELLOW	39	WHITE/RED/VIOLET	59	WHITE/VIOLET/GREEN
20	WHITE/BLUE	40	WHITE/GREEN/BLACK	60	WHITE/VIOLET/BLUE
2) Cable Assembly		60 Components Cabled			

a) Twists:	1.6 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	20 (7/28) AWG Tinned Copper	
b) Braid	Tinned Copper, 70% Coverage, Min.	
4) Jacket	0.053" Wall, Nom., PVC	0.774 (0.806 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 5160/60C 60C 20 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 1569	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):	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	-30 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	547 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	44 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	79 pF/ft @1 kHz, Nominal
4) Inductance	0.19 µH/ft, Nominal
5) Conductor DCR	10.4 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	1.26 Ω/1000ft @20°C, Nominal

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 1000 FT	36 x 14 x 12 Continuous length
b) 500 FT	30 x 14 x 12 Continuous length
c) 100 FT	24 x 14 x 12 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: 5160/60C

5160/60C , 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)

The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided 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 will become part of. The intent of this document is not 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.

Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA

5/3/2017

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