



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. 5160/40C

Construction

			Diameters (In)		
1) Component 1		40 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	15	RED/BLACK	29	WHITE/BLACK/BROWN
2	RED	16	WHITE/BLACK	30	WHITE/BLACK/ORANGE
3	WHITE	17	WHITE/RED	31	WHITE/BLACK/SLATE
4	GREEN	18	WHITE/GREEN	32	WHITE/BLACK/VIOLET
5	ORANGE	19	WHITE/YELLOW	33	WHITE/BLACK/BLACK
6	BLUE	20	WHITE/BLUE	34	WHITE/RED/BLACK
7	BROWN	21	WHITE/BROWN	35	WHITE/RED/RED
8	YELLOW	22	WHITE/ORANGE	36	WHITE/RED/GREEN
9	VIOLET	23	WHITE/SLATE	37	WHITE/RED/BLUE
10	SLATE	24	WHITE/VIOLET	38	WHITE/RED/BROWN
11	PINK	25	WHITE/BLACK/RED	39	WHITE/RED/VIOLET
12	TAN	26	WHITE/BLACK/GREEN	40	WHITE/GREEN/BLACK
13	RED/GREEN	27	WHITE/BLACK/YELLOW		
14	RED/YELLOW	28	WHITE/BLACK/BLUE		
2) Cable Assembly		40 Components Cabled			
a) Twists:		2.0 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		0.656 (0.683 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 5160/40C 40C 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 OR C(UL) TYPE CMG 105C FT4 CE ROHS (SEQ FOOTAGE) * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>
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## 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	C(UL) TYPE 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	373 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	39 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	70 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	1.14 Ω/1000ft @20°C, Nominal

## Other

<b>Packaging</b>	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: 5160/40C

5160/40C , 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

12/5/2018

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