



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

# Customer Specification

## PART NO. 5160/50C

Construction

			Diameters (In)		
1) Component 1		50 X 1 COND			
a) Conductor		20 (7/28) AWG TC		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	18	WHITE/GREEN	35	WHITE/RED/RED
2	RED	19	WHITE/YELLOW	36	WHITE/RED/GREEN
3	WHITE	20	WHITE/BLUE	37	WHITE/RED/BLUE
4	GREEN	21	WHITE/BROWN	38	WHITE/RED/BROWN
5	ORANGE	22	WHITE/ORANGE	39	WHITE/RED/VIOLET
6	BLUE	23	WHITE/SLATE	40	WHITE/GREEN/BLACK
7	BROWN	24	WHITE/VIOLET	41	WHITE/GREEN/RED
8	YELLOW	25	WHITE/BLACK/RED	42	WHITE/GREEN/GREEN
9	VIOLET	26	WHITE/BLACK/GREEN	43	WHITE/GREEN/BLUE
10	SLATE	27	WHITE/BLACK/YELLOW	44	WHITE/GREEN/BROWN
11	PINK	28	WHITE/BLACK/BLUE	45	WHITE/GREEN/VIOLET
12	TAN	29	WHITE/BLACK/BROWN	46	WHITE/BLUE/BLACK
13	RED/GREEN	30	WHITE/BLACK/ORANGE	47	WHITE/BLUE/RED
14	RED/YELLOW	31	WHITE/BLACK/SLATE	48	WHITE/BLUE/GREEN
15	RED/BLACK	32	WHITE/BLACK/VIOLET	49	WHITE/BLUE/BLUE
16	WHITE/BLACK	33	WHITE/BLACK/BLACK	50	WHITE/BLUE/BROWN
17	WHITE/RED	34	WHITE/RED/BLACK		
2) Cable Assembly		50 Components Cabled			
a) Twists:		1.8 Twists/foot (min)			
b) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.			
3) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		20 (7/28) AWG TC			
b) Braid		TC, 70% Coverage, Min.			
4) Jacket		0.053" Wall, Nom., PVC		0.718 (0.748 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 5160/50C 50C 20 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C OR AWM 2464 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 2464	80°C / 300 V <sub>RMS</sub>
	CM	105°C
	VW-1	
2) CSA International	CMG	105°C
	FT4	
3) CE:	EU Low Voltage Directive 2006/95/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. 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:	
	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-30 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	460 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 /1000ft @20°C, Nominal
6) OA Shield DCR	1.21 /1000ft @20°C, Nominal

## Other

Packaging	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	16 x 11 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

www.alphawire.com

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

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure there accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha had been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.



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

## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5160/50C

5160/50C , RoHS-Compliant Commencing With 8/1/2005 Production

This document certifies that the Alpha part number cited above are manufactured in accordance with Directive 2011/65/EC of the European Parliament, better known as the RoHS Directive, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

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)

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 Company:

A handwritten signature in black ink, appearing to read "Dave Watson", with a long horizontal flourish extending to the right.

Dave Watson, Director of Engineering & QA

1/3/2013