



# **Customer Specification**

**PART NO. 5080/50C** 

C	Construction				

						Diameter	s (In)
1) Component 1			50 X 1 COND				
a) Conductor			16 (19/.0117) AWG Tinned Copper		0.059		
b) Insulation			0.016" Wall, Nom. PVC			0.091	
(1) Color Code			Alpha W	ire Color Code D			
Cond	Color	Cond		Color	Cc	nd	Color
1	BLACK	18		WHITE/GREEN	35		WHITE/RED/RED
2	RED	19		WHITE/YELLOW	36	ı	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	ı	WHITE/RED/VIOLET
6	BLUE	23		WHITE/SLATE	40	ı	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	l	WHITE/BLUE/BLUE
16	WHITE/BLACK	33		WHITE/BLACK/BLACK	50	l	WHITE/BLUE/BROWN
17	WHITE/RED	34		WHITE/RED/BLACK			
2) Cable Assembly			50 Components Cabled				
a) Twists:			1.1 Twists/foot (min)				
b) Orientation:			Components to be arranged from INSIDE LAYER to OUTSIDE LAYER				
c) Core Wrap			Nonwoven Polyester Tape, 20% Overlap, Min.				
3) Jacket					0.917 (0.949 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 5080/50C 50C 16 AWG XTRAGUARD(R) 1 (UL) TYPE CM 105C SUN RES OR AWM 2464 80C 300V OR AWM 2517 105C 300V VW-1 OR C(UL) TYPE CMG 105C FT4 CE ROHS OIL RESISTANT (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 2517	105°C / 300 V <sub>RMS</sub>
	SUN RES	
	AWM/STYLE 2464	80°C / 300 V <sub>RMS</sub>
	СМ	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) Other	Other Oil Resistant	
5) CE:	EU Low Voltage Directive 2014/35/EU	

#### **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.			
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.			
3) California Proposition 65:	This product may contain substances known to the State of California to cause Cancer or Reproductive Harm, but is exempt from labeling based on the Consent Judgement. See the Alpha Wire website for more information.			

# **Properties**

Physical & Mechanical Properties			
1) Temperature Range	-30 to 105℃		
2) Bend Radius	10X Cable Diameter		
3) Pull Tension	1022 Lbs, Maximum		
4) Sunlight Resistance	Yes		
<b>Electrical Properties</b>	(For Engineering purposes only)		
1) Voltage Rating	300 V <sub>RMS</sub>		
2) Capacitance	32 pF/ft @1 kHz, Nominal Conductor to Conductor		
3) Inductance	0.17 μH/ft, Nominal		
4) Conductor DCR	4.4 Ω/1000ft @20°C, Nominal		

#### Other

Packaging	Flange x Traverse x Barrel (inches)	
a) 1000 FT	48 x 26 x 18 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)		
	[Spool dimensions may vary slightly]	
Notes:		
a) Oil Resistant Jacket (7d @ 60C).		

#### www.alphawire.com

Alpha Wire 2200 US Highway 27 South Richmond, IN 47374

Tel: 1-800-52 ALPHA

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 - CONFIDENTIAL AND PROPRIETARY Notice to persons receiving this document and/or technical information. This document is confidential and is the exclusive property of ALPHA WIRE, and is merely on loan and subject to recall by ALPHA WIRE at any time. By

is confidential and is the exclusive property of ALPHA WIRE, and is merely on loan and subject to recall by ALPHA WIRE at any time. By taking possession of this document, the recipient acknowledges and agrees that this document cannot be used in any manner adverse to the interests of ALPHA WIRE, and that no portion of this document may be copied or otherwise reproduced without the prior written consent of ALPHA WIRE. In the case of conflicting contractual provisions, this notice shall govern the status of this document. ©2024 ALPHA WIRE - all rights reserved.



### **EU/UK/China ROHS CERTIFICATE OF COMPLIANCE**

To Whom It May Concern:

Alpha Wire Part Number: 5080/50C

5080/50C, RoHS-Compliant Commencing With 8/1/2005 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, 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). This product also complies with UK - RoHS. 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. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

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 5/3/2024

Alpha Wire 2200 US Highway 27 South Richmond, IN 47374 Tel: 1-908-925-8000