

## Customer Specification

**PART NO. 6312**

## Construction

				Diameter ("in")	
1) Component 1		50 x 1 COND			
a) Conductor		24 (7/32) AWG Tinned Copper		0.024	
b) Insulation		0.010" Wall, Nom. PVC, Semi-Rigid		0.044	
(1) Color Code		Alpha Wire Color Code F			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	18	ORANGE/RED	35	WHITE/RED/ORANGE
2	WHITE	19	BLUE/RED	36	ORANGE/WHITE/BLUE
3	RED	20	RED/GREEN	37	WHITE/RED/BLUE
4	GREEN	21	ORANGE/GREEN	38	BLACK/WHITE/GREEN
5	ORANGE	22	BLACK/WHITE/RED	39	WHITE/BLACK/GREEN
6	BLUE	23	WHITE/BLACK/RED	40	RED/WHITE/GREEN
7	WHITE/BLACK	24	RED/BLACK/WHITE	41	GREEN/WHITE/BLUE
8	RED/BLACK	25	GREEN/BLACK/WHITE	42	ORANGE/RED/GREEN
9	GREEN/BLACK	26	ORANGE/BLACK/WHITE	43	BLUE/RED/GREEN
10	ORANGE/BLACK	27	BLUE/BLACK/WHITE	44	BLACK/WHITE/BLUE
11	BLUE/BLACK	28	BLACK/RED/GREEN	45	WHITE/BLACK/BLUE
12	BLACK/WHITE	29	WHITE/RED/GREEN	46	RED/WHITE/BLUE
13	RED/WHITE	30	RED/BLACK/GREEN	47	GREEN/ORANGE/RED
14	GREEN/WHITE	31	GREEN/BLACK/ORANGE	48	ORANGE/RED/BLUE
15	BLUE/WHITE	32	ORANGE/BLACK/GREEN	49	BLUE/RED/ORANGE
16	BLACK/RED	33	BLUE/WHITE/ORANGE	50	BLACK/ORANGE/RED
17	WHITE/RED	34	BLACK/WHITE/ORANGE		
2) Cable Assembly		50 Components Cabled			
a) Twists		2.3 Twists/foot (min.)			
b) Orientation		Components to be arranged from INSIDE LAYER-to-OUTSIDE LAYER			
3) Shield		Alum/Mylar Tape, 20% Overlap (min.)			
a) Foil Direction		Foil Facing Out			
b) Drain Wire		24 (7/32) AWG Tinned Copper			
4) Jacket		0.045" Wall, Nom. PVC		0.453 (0.478 max.)	
a) Color(s)		SLATE			
b) Print		ALPHA WIRE-* P/N 6312 50C 24 AWG SHIELDED 75C (UL) TYPE CM OR AWM 2464 OR C(UL) 60C TYPE CMG FT4 CE ROHS * = Factory Code <i>Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.</i>			

## Applicable Specifications

1) UL	AWM/STYLE 2464	80°C / 300 V <sub>RMS</sub>
	CM	75°C
	VW-1	
2) CSA International	C(UL) TYPE CMG	60°C
	FT4	
3) 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 detail.

# Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	179 lbs. (max.)
Electrical Properties	For Engineering purposes only
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	31 pF/ft @1 kHz, Nominal Conductor-to-Conductor
3) Ground Capacitance	56 pF/ft @1 kHz, Nominal
4) Inductance	0.19 µH/ft, Nominal
5) Conductor DCR	26 ω/1000ft @20°C, Nominal
6) OA Shield DCR	13.4 ω/1000ft @20°C, Nominal

# Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	24 x 14 x 12 Continuous Length
b) 500 FT	18 x 14.25 x 8 Continuous Length
c) 100 FT	12 x 5.94 x 5 Continuous Length
	Spool dimensions may vary slightly.

[www.alphawire.com](http://www.alphawire.com)

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# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 6312

6312, RoHS-Compliant Commencing With 01/08/2005 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

Lead  
Mercury  
Cadmium  
Hexavalent Chromium  
Polybrominated Biphenyls (PBB)  
Polybrominated Diphenyl Ethers (PBDE) ,  
Including Deca-BDE  
Bis(2-ethylhexyl) phthalate (DEHP)  
Butyl benzyl phthalate (BBP)  
Dibutyl phthalate (DBP)  
Diisobutyl phthalate (DIBP)

## Maximum Control Value

0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
0.01% by weight (100 ppm)  
0.1% by weight (1000 ppm )  
0.1% by weight (1000 ppm)  
  
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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 19/05/2024

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