



2200 US Highway 27 South  
Richmond, IN 47374  
Tel: 1-800-52 ALPHA  
Web: [www.alphawire.com](http://www.alphawire.com)

## Customer Specification

### PART NO. 6400

#### Construction

						Diameters (In)	
1) Component 1						31 X 1 PAIR	
a) Conductor						28 (7/36) AWG Tinned Copper	0.015
b) Insulation						0.010" Wall, Nom. Polyethylene(PE)	0.035
(1) Color Code						Alpha Wire Color Code K	
Pair	Color	Pair	Color	Pair	Color		
1	BLACK-RED	12	RED-BROWN	23	BLUE-YELLOW		
2	BLACK-WHITE	13	RED-ORANGE	24	BLUE-BROWN		
3	BLACK-GREEN	14	GREEN-WHITE	25	BLUE-ORANGE		
4	BLACK-BLUE	15	GREEN-BLUE	26	BROWN-YELLOW		
5	BLACK-YELLOW	16	GREEN-YELLOW	27	BROWN-ORANGE		
6	BLACK-BROWN	17	GREEN-BROWN	28	ORANGE-YELLOW		
7	BLACK-ORANGE	18	GREEN-ORANGE	29	VIOLET-ORANGE		
8	RED-WHITE	19	WHITE-BLUE	30	VIOLET-RED		
9	RED-GREEN	20	WHITE-YELLOW	31	VIOLET-WHITE		
10	RED-BLUE	21	WHITE-BROWN				
11	RED-YELLOW	22	WHITE-ORANGE				
c) Pair						2/Cond Cabled Together	
(1) Twists:						12.0 Twists/foot (min)	
2) Cable Assembly						31 Components Cabled	
a) Twists:						2.2 Twists/foot (min)	
b) Orientation:						Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
3) Shield:						Alum/Mylar Tape, 25% Overlap, Min.	
a) Foil Direction						Foil Facing Out	
b) Drain Wire						28 (7/36) AWG Tinned Copper	
c) Braid						Tinned Copper, 90% Coverage, Min.	
4) Jacket						0.035" Wall, Nom., PVC	0.470 (0.500 Max.)
a) Color(s)						SLATE	
b) Print						ALPHA WIRE-* P/N 6400 31PR 28 AWG SHIELDED 75C (UL) TYPE CL2 OR AWM 2960 C(UL) TYPE CM 60C FT1 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 2960	60°C / 30 V <sub>RMS</sub>
	CL2	75°C
	VW-1	
2) CSA International	CMH	60°C
	FT1	
	C(UL) TYPE CM	60°C
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.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 75°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	96 Lbs, Maximum
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Characteristic Impedance	100 Ω
3) Mutual Capacitance	15.5 pF/ft @1 kHz, Nominal
4) Ground Capacitance	27.5 pF/ft @1 kHz, Nominal
5) Conductor DCR	67 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	2.25 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	18 x 9 x 8 Continuous length
<i>[Spool dimensions may vary slightly]</i>	

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



2200 US Highway 27 South  
Richmond, IN 47374  
Tel: 1-800-52 ALPHA  
Web: [www.alphawire.com](http://www.alphawire.com)

## EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 6400

6400, RoHS-Compliant Commencing With 11/1/2004 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:

A blue ink signature of the name "Dave Watson" in cursive script.

Dave Watson, Director of Engineering 2/24/2026

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