

## Customer Specification

**PART NO. F16033LW**

## Construction

						Diameters (In)	
1) Component 1						33 X 1 COND	
a) Conductor						16 (65/34) AWG Bare Copper	0.059
b) Insulation						0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.101
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
(2) Color Code						Alpha Wire Color Code LW	
Cond	Color	Cond	Color	Cond	Color		
1	GREEN/YEL	12	DK. BLUE#11	23	DK. BLUE#22		
2	DK. BLUE#1	13	DK. BLUE#12	24	DK. BLUE#23		
3	WHITE/BLU	14	DK. BLUE#13	25	DK. BLUE#24		
4	DK. BLUE#3	15	DK. BLUE#14	26	DK. BLUE#25		
5	DK. BLUE#4	16	DK. BLUE#15	27	DK. BLUE#26		
6	DK. BLUE#5	17	DK. BLUE#16	28	DK. BLUE#27		
7	DK. BLUE#6	18	DK. BLUE#17	29	DK. BLUE#28		
8	DK. BLUE#7	19	DK. BLUE#18	30	DK. BLUE#29		
9	DK. BLUE#8	20	DK. BLUE#19	31	DK. BLUE#30		
10	DK. BLUE#9	21	DK. BLUE#20	32	DK. BLUE#31		
11	DK. BLUE#10	22	DK. BLUE#21	33	DK. BLUE#32		
2) Cable Assembly						33 Components Cabled	
a) Twists:						1.7 Twists/foot (min)	
b) Orientation:						Components to be arranged from OUTSIDE LAYER to INSIDE LAYER	
c) Core Wrap						REMA Y Tape, 25% Overlap, Min.	
3) Jacket						0.085" Wall, Nom.,TPE	0.899+/- 0.043
a) Color(s)						BLACK	
b) Print						ALPHA WIRE-* P/N F16033LW 33C 16 AWG (1.31mm2) SERIES F (UL) TYPE TC-ER 90C WET/DRY 600V OIL RES I/II -40C SUN RES OR TYPE PLTC 90C OR C(UL) CIC CONTROL/TC 16 AWG -40C 90C WET 90C DRY PVC/NYLON INS FT4 OR CRU AWM I/II A/B 90C 600V FT4 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]	

Applicable Specifications

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Physical & Mechanical Properties	
1) Temperature Range	-40 to 90°C(static), -5 to 90°C (dynamic)
2) Bend Radius	6X Cable Diameter(static), 8X Cable Diameter(dynamic)
3) Pull Tension	669 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	600 V <sub>RMS</sub>
2) Capacitance	29 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Inductance	0.18 µH/ft, Nominal
4) Conductor DCR	4.3 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	
Notes:	
a) Suitable for constant flexing where cycle count will be less than 20,000,000 cycles.	

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

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## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: F16033LW

F16033LW, RoHS-Compliant Commencing With 01/08/2005 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 Union (2011/65/EU), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. 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 **Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control"

### 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 issuance. This document is intended to provide guidance 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 provide regulatory information for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory requirements. Authorized Signatory for the Alpha Wire:

A handwritten signature in blue ink, appearing to read 'QBW', with a long horizontal line extending to the right.

Dave Watson, Director of Engineering & QA 16/09/2025

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