

## Customer Specification

### PART NO. F16012KW

## Construction

						Diameters (In)		
1) Component 1						12 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 KW		
Cond	Color	Cond	Color	Cond	Color			
1	GREEN/YELL	5	BLACK#4	9	BLACK#8			
2	BLACK#1	6	BLACK#5	10	BLACK#9			
3	WHITE/BLAC	7	BLACK#6	11	BLACK#10			
4	BLACK#3	8	BLACK#7	12	BLACK#11			
2) Cable Assembly						12 Components Cabled		
a) Twists:						3.0 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						0.065" Wall, Nom.,TPE		0.565+/- 0.028
a) Color(s)						BLACK		
b) Print						ALPHA WIRE-* P/N F16012KW 12C 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



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	243 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	4.2 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)

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374

Tel: 1-800-52 ALPHA

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## EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: F16012KW

F16012KW, 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

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)  
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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 8/13/2025

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