

# **Customer Specification**

## **PART NO. 77109**

#### Construction

							Diame	eters (In)	
1) Component 1 2 X 1 COND		1 COND							
a) Conductor 22 (7/30) AWG		(7/30) AWG Ti	Tinned Copper				0.030		
b) Insulation 0.010" Wall, No		10" Wall, Nom	· ·				0.050		
(1) Color Code	Color Code Alpha Wire Col			or Code E					
Cond	Color		Cond	Color		Cond		Color	
1	BLACK		2	BROWN					
2) Cable Assembly	2 0	Components C	abled					·	
a) Twists:	12.	12.0 Twists/foot (min)							
b) Orientation:	Co	mponents to b	be arranged fro	om INSIDE LAYER to OL	ISIDE LAYER to OUTSIDE LAYER				
c) Core Wrap	No	nwoven Polye	ester Tape, 25% Overlap, Min.						
3) Shield:	Alu	ım/Mylar Tape	e, 25% Overlap, Min.						
a) Foil Direction Foil Facing In		l Facing In							
b) Drain Wire 22 (7/30) AWG		(7/30) AWG Ti	Tinned Copper						
4) Jacket 0.032" Wall, N		32" Wall, Nom	m.,MPPE				0.172 (	0.172 (0.182 Max.)	
a) Color(s)	SLA	ATE							
b) Ripcord	ord 1 End 810 Denier			r Nylon					
c) Print C(RU) ALPHA WIRE-* P/N 77 ECOCABLE(R) RU AWM C(RU) AWM I/II A/B FT CE ROHS (SEQ FOOTA * = Factory Code			AWM 21915 1 /B FT2 600V 1 OOTAGE)	05C 600V					

### **Applicable Specifications**

1) UL			
a) Component 1	AWM/STYLE 11231	105°C / 600 V <sub>RMS</sub>	
b) Overall	AWM/STYLE 21915	105°C / 600 V <sub>RMS</sub>	
	Horizontal Flame		
2) CSA International	C(RU) AWM I/II A/B FT2	105°C / 600 V <sub>RMS</sub>	
3) Other	Halogen-Free		
	NFPA 79 - 2015 Compliant		
4) 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 190	07/2006):
	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	-50 to 105°C		
2) Bend Radius	6X Cable Diameter		
3) Pull Tension	16.5 Lbs, Maximum		
Electrical Properties	(For Engineering purposes only)		
1) Voltage Rating	600 V <sub>RMS</sub>		
2) Capacitance	27 pF/ft @1 kHz, Nominal Conductor to Conductor		
3) Ground Capacitance	49 pF/ft @1 kHz, Nominal		
4) Characteristic Impedance	58 Ω		
5) Inductance	0.18 μH/ft, Nominal		
6) Conductor DCR	16.4 Ω/1000ft @20°C, Nominal		
7) OA Shield DCR	13.7 Ω/1000ft @20°C, Nominal		

## Other

12 x 5.94 x 5 Continuous length	
6.5 x 2 x 1.9 Continuous length	
[Spool dimensions may vary slightly]	
-	6.5 x 2 x 1.9 Continuous length

#### 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: 77109

77109, RoHS-Compliant Commencing With 10/12/2012 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 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