

Customer Specification

PART NO. MP12105LW

Construction

						Diameters (In)	
1) Component 1						5 X 1 COND	
a) Conductor						12 (65/30) AWG Bare Copper	0.093
b) Insulation						0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.135
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
(2) Color Code						Alpha Wire Color Code LX	
Cond	Color	Cond	Color	Cond	Color		
1	GREEN/YEL	3	DK. BLUE#2	5	DK. BLUE#4		
2	DK. BLUE#1	4	DK. BLUE#3				
2) Cable Assembly						5 Components Cabled	
a) Twists:						2.4 Twists/foot (min)	
b) Orientation:						Components to be arranged from OUTSIDE LAYER to INSIDE LAYER	
c) Core Wrap						REMAI Tape, 25% Overlap, Min.	
3) Jacket						0.065" Wall, Nom.,TPE	0.511 +/- 0.022
a) Color(s)						Yellow, Orange, Black	
b) Print						ALPHA WIRE-* P/N MP12105LW 5C 12 AWG (3.29mm ²) THWN-2 SERIES P (UL) TYPE TC-ER 90C 600V OIL RES I/II SUN RES OR TYPE PLTC 90C OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS FT4 12 AWG 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	-30 to 90°C(static), -5 to 90°C (dynamic)
2) Bend Radius	8X Cable Diameter(static), 8X Cable Diameter(dynamic)
3) Pull Tension	255 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	600 V _{RMS}
2) Capacitance	33 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Inductance	0.16 µH/ft, Nominal
4) Conductor DCR	1.65 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	
Notes:	
a) Suitable for intermittent or light duty flexing where cycle count will be less than 1,500,000 cycles.	

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: MP12105LW

MP12105LW, 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	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)

Maximum Control Value

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 4/27/2025

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