

Customer Specification

PART NO. MP10105KW

Construction

						Diameters (In)		
1) Component 1						5 X 1 COND		
a) Conductor						10 (105/30) AWG Bare Copper		0.118
b) Insulation						0.022" Wall, Nom. PVC/ 0.005" Wall NYLON		0.172
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED		
(2) Color Code						Alpha Wire Color Code KX		
Cond	Color	Cond	Color	Cond	Color			
1	GREEN/YELLO	3	BLACK#2	5	BLACK#4			
2	BLACK#1	4	BLACK#3					
2) Cable Assembly						5 Components Cabled		
a) Twists:						1.8 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		0.612+/- 0.028
a) Color(s)						Yellow, Orange, Black		
b) Print						ALPHA WIRE-* P/N MP10105KW 5C 10 AWG (5.32mm2) THWN-2 SERIES P (UL) TYPE TC-ER 90C WET/DRY 600V OIL RES I/II SUN RES OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS FT4 10 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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1) UL		
a) Component 1	MTW	90°C Dry / 60°C Wet / 600 V _{RMS}
	THWN-2	90°C Dry / 90°C Wet / 600 V _{RMS}
b) Overall	TC	90°C Dry / 90°C Wet / 600 V _{RMS}
	EXPOSED RUN	
	SUN RES	
	OIL RES I/II	
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V _{RMS}
	FT4	
	C(UL) CIC CONTROL	90°C / 600V V _{RMS}
	C(UL) TC	90°C / 600V V _{RMS}
3) Other	Conductors ASTM Class K	
	Conductors IEC Class 5 on AWG size	
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 1907/2006):	
	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	-30 to 90°C(static), -5 to 90°C (dynamic)
2) Bend Radius	8X Cable Diameter(static), 8X Cable Diameter(dynamic)
3) Pull Tension	412 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	1.02 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.	

www.alphawire.com

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SpecPDFFooterConfidential



EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: MP10105KW

MP10105KW, 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 this document. This document is intended to be used as a 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 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 02/08/2025

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