

## Customer Specification

**PART NO. MP18142KW**

## Construction

						Diameters (In)		
1) Component 1						42 X 1 COND		
a) Conductor						18 (19/30) AWG Bare Copper		0.050
b) Insulation						0.016" Wall, Nom. PVC/ 0.005" Wall NYLON		0.092
(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/YEL	15	BLACK#14	29	BLACK#28			
2	BLACK#1	16	BLACK#15	30	BLACK#29			
3	WHITE/BLA	17	BLACK#16	31	BLACK#30			
4	BLACK#3	18	BLACK#17	32	BLACK#31			
5	BLACK#4	19	BLACK#18	33	BLACK#32			
6	BLACK#5	20	BLACK#19	34	BLACK#33			
7	BLACK#6	21	BLACK#20	35	BLACK#34			
8	BLACK#7	22	BLACK#21	36	BLACK#35			
9	BLACK#8	23	BLACK#22	37	BLACK#36			
10	BLACK#9	24	BLACK#23	38	BLACK#37			
11	BLACK#10	25	BLACK#24	39	BLACK#38			
12	BLACK#11	26	BLACK#25	40	BLACK#39			
13	BLACK#12	27	BLACK#26	41	BLACK#40			
14	BLACK#13	28	BLACK#27	42	BLACK#41			
2) Cable Assembly						42 Components Cabled		
a) Twists:						1.2 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		0.886+/- 0.045
a) Color(s)						Yellow, Orange, Black		
b) Print						ALPHA WIRE-* P/N MP18142KW 42C 18 AWG (0.963mm2) SERIES P (UL) TYPE TC-ER 90C WET/DRY 600V OIL RES I/II SUN RES OR TYPE PLTC 90C OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS FT4 18 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 <sub>RMS</sub>
b) Overall	TC	90°C Dry / 90°C Wet / 600 V <sub>RMS</sub>
	PLTC	90°C
	SUN RES	
	EXPOSED RUN	
	OIL RES I/II	
2) CSA International	C(RU) AWM I/II A/B	90°C / 600 V <sub>RMS</sub>
	FT4	
	C(UL) CIC CONTROL	90°C / 600V V <sub>RMS</sub>
	C(UL) TC	90°C / 600V V <sub>RMS</sub>
3) Other	Conductors ASTM Class K	
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	627 Lbs, Maximum
4) Sunlight Resistance	Yes
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) Inductance	0.19 µH/ft, Nominal
4) Conductor DCR	5.7 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](http://www.alphawire.com)

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Alpha Wire □□□□MP18142KW

**Alpha** 2011/65/EU RoHS2015/863/EURoHSSJ/T 11364-2014

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Lead	□□□□□□□□□□0.1% (1000 ppm)
Mercury	□□□□□□□□□□0.1% (1000 ppm)
Cadmium	□□□□□□□□□□0.01% (100 ppm)
Hexavalent Chromium	□□□□□□□□□□0.1% (1000 ppm)
Polybrominated Biphenyls (PBB)	□□□□□□□□□□0.1% (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE), Including Deca-BDE	□□□□□□□□□□0.1% (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	□□□□□□□□□□0.1% (1000 ppm)
Butyl benzyl phthalate (BBP)	□□□□□□□□□□0.1% (1000 ppm)
Dibutyl phthalate (DBP)	□□□□□□□□□□0.1% (1000 ppm)
Diisobutyl phthalate (DIBP)	□□□□□□□□□□0.1% (1000 ppm)

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