

# Customer Specification

## PART NO. 6421

### Construction

						<b>Diameter ("in")</b>	
1) Component 1						9 x 1 PAIR	
a) Conductor						22 (7/30) AWG Tinned Copper	0.030
b) Insulation						0.013" Wall, Nom. PVC	0.056
(1) Print						ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING & INVERTED	
(2) Color Code						Alpha Wire Color Code BR	
Pair	Color	Pair	Color	Pair	Color		
1	BLACK#1-RED#1	4	BLACK#4-RED#4	7	BLACK#7-RED#7		
2	BLACK#2-RED#2	5	BLACK#5-RED#5	8	BLACK#8-RED#8		
3	BLACK#3-RED#3	6	BLACK#6-RED#6	9	BLACK#9-RED#9		
c) Pair						2/Cond Cabled Together	
(1) Twists						8.0 Twists/foot (approx.)	
2) Cable Assembly						9 Components Cabled	
a) Twists						2.4 Twists/foot (min.)	
b) Orientation						Components to be arranged from INSIDE LAYER-to-OUTSIDE LAYER	
c) Core Wrap						Clear Mylar Tape, 25% Overlap (min.)	
3) Shield						Alum/Mylar Tape, 25% Overlap (min.)	
a) Foil Direction						Foil Facing In	
b) Drain Wire						24 (7/32) AWG Tinned Copper	
4) Jacket						0.053" Wall, Nom. PVC	0.447 (0.469 max.)
a) Color(s)						SLATE	
b) Print						ALPHA WIRE-* P/N 6421 9PR 22 AWG SHIELDED 105C (UL) TYPE PLTC SUN RES OR TYPE CM OR C(UL) 60C TYPE CMG FT4 CE ROHS * = Factory Code <i>Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.</i>	

### Applicable Specifications

1) UL	CM	105°C
	PLTC	105°C
	SUN RES	
2) CSA International	C(UL) TYPE CMG	60°C
	FT4	
3) 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 detail.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	102 lbs. (max.)
Electrical Properties	
	<i>For Engineering purposes only</i>
1) Voltage Rating	300 V <sub>RMS</sub>
2) Mutual Capacitance	28 pF/ft @1 kHz, Nominal
3) Ground Capacitance	50 pF/ft @1 kHz, Nominal
4) Characteristic Impedance	75 $\omega$
5) Inductance	0.19 $\mu$ H/ft, Nominal
6) Conductor DCR	16.6 $\omega$ /1000ft @20°C, Nominal
7) OA Shield DCR	13.4 $\omega$ /1000ft @20°C, Nominal

## Other

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<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 1000 FT	24 x 14 x 12 Continuous Length
b) 500 FT	18 x 14.25 x 8 Continuous Length
	<i>Spool dimensions may vary slightly.</i>

[www.alphawire.com](http://www.alphawire.com)

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