

## Customer Specification

### PART NO. 6450

### Construction

						Diameter ("in")	
1) Component 1						2 x 1 COND	
a) Conductor						18 (7/26) AWG Tinned Copper	0.046
b) Insulation						0.025" Wall, Nom. FRPP	0.096
(1) Color(s)							
Cond	Color	Cond	Color	Cond	Color		
1	BLUE	2	WHITE				
2) Cable Assembly						2 Components Cabled	
a) Twists						6.9 Twists/ft. (min.)	
b) Orientation						Components to be arranged from INSIDE LAYER-to-OUTSIDE LAYER	
3) Shield						Alum/Mylar Tape, 25% Overlap (min.)	
a) Foil Direction						Foil Facing Out	
b) Drain Wire						20 (7/28) AWG Tinned Copper	
c) Braid						Tinned Copper, 55% Coverage (min.)	
4) Jacket						0.053" Wall, Nom., PVC	0.324+/- 0.015
a) Color(s)						BLUE	
b) Print						ALPHA WIRE-* P/N 6450 EXXXXX 1PR18 SHIELDED (UL) 600V 75C DRY SUN RES TYPE TC OR PLTC OR ITC OR CMG OR C(UL) CMG --- P-MSHA (MSHA #) CE ROHS (SEQ FOOTAGE EVERY 2 FT) * = Factory Code <i>Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.</i>	

### Applicable Specifications

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1) UL	TC	75°C / 600 V <sub>RMS</sub>
	PLTC	75°C
	ITC	75°C
	CMG	75°C
	SUN RES	
2) CSA International	CMG	75°C
	FT4	
3) Other	PMSHA Specification	
4) CE	EU Low Voltage Directive 2014/35/EU	

## Environmental

1) CE: EU Directive 2011/65/EU(RoHS2)	
	<p>This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011and the amending Directive 2015/863/EU of 4 June 2015 . No exemptions are required for RoHS Compliance on this item. Refer to the <a href="#">RoHS Certificate of Compliance</a> for more detail.</p>

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-40 to 75°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	40 lbs. max.
Electrical Properties	
	<i>Engineering purposes only</i>
1) Voltage Rating	600 V <sub>RMS</sub>
2) Characteristic Impedance	78 ω +/- 5
3) Inductance	0.12 μH/ft., Nominal
4) Mutual Capacitance	19.5 pF/ft. @1 kHz, Nominal
5) Velocity of Propagation	65%
6) Conductor DCR	6.9 ω/1000ft. @20°C, Nominal
7) OA Shield DCR	3.2 ω/1000ft. @20°C, Nominal
8) Attenuation (max. dB/100ft.)	0.5 @  MHz
	2 @10 MHz
	3.8 @50 MHz
	5.4 @100 MHz
	7.6 @200 MHz
	10.7 @400 MHz

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 12 x 8 Continuous Length
b) 500 FT	12 x 12 x 3.5 Continuous Length
c) 100 FT	12 x 4.5 x 3.5 Continuous Length
	<i>Spool dimensions may vary slightly.</i>

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

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Alpha Wire □□□□6450

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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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