

## Customer Specification

**PART NO. M9700040**

## Construction

						<b>Diameters (In)</b>		
1) Component 1						4 X 1 PAIR		
a) Conductor						20 (7/.0121) AWG Bare Copper		0.036
b) Insulation						0.016" Wall, Nom. PVC		0.068
(1) Print						ALPHA NUMERIC NUMBERS - WHITE CONDUCTOR ONLY (ONE-1) ALTERNATE INVERTED 2"SPACING(CTR. TO CTR.)		
(2) Color Code						Alpha Wire Color Code BW		
Pair	Color	Pair	Color	Pair	Color			
1	BLACK-WHITE#1	3	BLACK-WHITE#3					
2	BLACK-WHITE#2	4	BLACK-WHITE#4					
c) Pair						2/Cond Cabled Together		
(1) Twists:						6.0 Twists/foot (min)		
2) Component 2						1 X 1 COND		
a) Conductor						22 (7/30) AWG Bare Copper		0.030
b) Insulation						0.016" Wall, Nom. PVC		0.062
(1) Color(s)								
Cond	Color	Cond	Color	Cond	Color			
1	ORANGE							
3) Cable Assembly						5 Components Cabled		
a) Twists:						2.8 Twists/foot (min)		
b) Orientation:						Components to be arranged from INSIDE LAYER to OUTSIDE LAYER		
c) Core Wrap						Clear Mylar Tape, 25% Overlap, Min.		
4) Shield:						Alum/Mylar Tape, 25% Overlap, Min.		
a) Foil Direction						Foil Facing In		
b) Drain Wire						22 (7/30) AWG Tinned Copper		
5) Jacket						0.053" Wall, Nom.,PVC		0.400 (0.418 Max.)
a) Color(s)						BLACK		
b) Ripcord						1 End 810 Denier Nylon		
c) Print						ALPHA WIRE-* P/N M9700040 4PR 20 AWG 1C 22 AWG SHIELDED EXXXXX (UL) TYPE PLTC/ITC 105C SUN RES OR CL3 105C OR C(UL) CMG 105C FT4 CE ROHS * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]		

## Applicable Specifications

1) UL	CL3	105°C
	PLTC	105°C
	ITC	105°C
	SUN RES	
2) CSA International	C(UL) TYPE CMG	105°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 information.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	75 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Component 1	
a) Mutual Capacitance	35 pF/ft @1 kHz, Nominal
b) Ground Capacitance	63 pF/ft @1 kHz, Nominal
c) Characteristic Impedance	65 Ω
d) Inductance	0.19 μH/ft, Nominal
e) Conductor DCR	10.6 Ω/1000ft @20°C, Nominal
f) OA Shield DCR	10.3 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Ground Capacitance	107 pF/ft @1 kHz, Nominal
b) Inductance	0.044 μH/ft, Nominal
c) Conductor DCR	15.3 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	10.3 Ω/1000ft @20°C, Nominal

## Other

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Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 14.25 x 8 Continuous length
b) 500 FT	18 x 9 x 8 Continuous length
c) 100 FT	12 x 5.94 x 5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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

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☐ Alpha ☐ 2011/65/EU ☐ RoHS2 ☐ 2015/863/EU  
☐ RoHS ☐ SJ/T 11364-2014

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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