

## Customer Specification

**PART NO. M9748080**

## Construction

						Diameters (In)		
1) Component 1						8 X 1 PAIR		
a) Conductor						18 (7/.0152) AWG Bare Copper		0.046
b) Insulation						0.016" Wall, Nom. PVC		0.078
(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	4	BLACK-WHITE#4	7	BLACK-WHITE#7			
2	BLACK-WHITE#2	5	BLACK-WHITE#5	8	BLACK-WHITE#8			
3	BLACK-WHITE#3	6	BLACK-WHITE#6					
c) Pair						2/Cond Cabled Together		
(1) Twists:						5.3 Twists/foot (min)		
Individually Applied:								
d) Shield:						Foil Free Alum/Mylar Tape, 25% Overlap, Min.		
(1) Foil Direction						Foil Facing In		
(2) Drain Wire						20 (7/28) AWG Tinned Copper		
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						9 Components Cabled		
a) Twists:						1.7 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						20 (7/28) AWG Tinned Copper		
5) Jacket						0.063" Wall, Nom.,PVC		0.621 (0.645 Max.)
a) Color(s)						BLACK		
b) Ripcord						1 End 810 Denier Nylon		
c) Print						ALPHA WIRE-* P/N M9748080 8PR 18 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

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Physical & Mechanical Properties	
1) Temperature Range	-20 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	287 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	48 pF/ft @1 kHz, Nominal
b) Ground Capacitance	86 pF/ft @1 kHz, Nominal
c) Characteristic Impedance	44 Ω
d) Inductance	0.18 μH/ft, Nominal
e) Conductor DCR	6.7 Ω/1000ft @20°C, Nominal
f) Component Shield DCR	8.3 Ω/1000ft @20°C, Nominal
g) OA Shield DCR	6.4 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Ground Capacitance	94 pF/ft @1 kHz, Nominal
b) Inductance	0.044 μH/ft, Nominal
c) Conductor DCR	15.4 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	6.4 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	18 x 9 x 8 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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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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