

Customer Specification

PART NO. M9748120

Construction

								Diamete	rs (In)	
1) Component 1		12 X 1 PAIR								
a) Conductor		18 (7/.0152) AWG Bare Copper				0.046				
b) Insulation		0.016" Wall, Nom. PVC				0.078	0.078			
(1) Print		ALPHA NUMERIC NUMBERS - WHITE CONDUCTOR ONLY (ONE-1) ALTERNATE INVERTED 2"SPACING(CTR. TO CTR.)								
(2) Color Cod	е		Alpha Wire C	olor Code BW	V					
Pair	Color		1	Pair	Color Pair		r	Color		
1	BLAC	CK-WHITE#1		5	BLACK-WHITE#5 9			BLACK	-WHITE#9	
2	BLACK-WHITE#2		2 (5			10		BLACK-WHITE#10	
3			3	7	BLACK-WHITE#7 11			BLACK	-WHITE#11	
4	4 BLACK-WHITE#4		4 8	3	BLACK-	WHITE#8	12		BLACK	-WHITE#12
c) Pair	c) Pair		2/Cond Cabled Together							
			5.3 Twists/fo	.3 Twists/foot (min)						
Individually A	pplied:									
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	C	Cond		Color
1		ORANGE								
3) Cable Assembly		13 Components Cabled								
a) Twists:			1.4 Twists/foot (min)							
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER								
c) Core Wrap			Clear Mylar Tape, 25% Overlap, Min.							
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				0.723 (0.7	750 Max.)			
		BLACK								
		1 End 810 Denier Nylon								
c) Print		ALPHA WIRE-* P/N M9748120 12PR 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

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/E	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 190	17/2006):
	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	424 Lbs, Maximum			
4) Sunlight Resistance	Yes			
Electrical Properties	(For Engineering purposes only)			
1) Voltage Rating	300 V _{RMS}			
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	6.4 Ω/1000ft @20°C, Nominal		

Other

Packaging	Flange x Traverse x Barrel (inches)	
a) 1000 FT	36 x 14 x 12 Continuous length	
b) 500 FT	30 x 14 x 12 Continuous length	
c) 100 FT	18 x 9 x 8 Continuous length	
d) Bulk(Made-to-order)		
	[Spool dimensions may vary slightly]	

www.alphawire.com

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M9748120

M9748120, RoHS-Compliant Commencing With 1/1/2006 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS 2 per GB/T 26572-2011.

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

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 5/5/2024

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