

Customer Specification

PART NO. M9748040

Construction

						Diameters (In)				
1) Component 1						4 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	3	BLACK-WHITE#3							
2	BLACK-WHITE#2	4	BLACK-WHITE#4							
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						5 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.				
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						0.053" Wall, Nom.,PVC		0.459 (0.478 Max.)		
a) Color(s)						BLACK				
b) Ripcord						1 End 810 Denier Nylon				
c) Print						ALPHA WIRE-* P/N M9748040 4PR 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	151 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	7.5 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	15.3 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	7.5 Ω/1000ft @20°C, Nominal

Other

Packaging	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
c) 100 FT	12 x 5.94 x 5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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SpecPDFFooterConfidential



EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M9748040

M9748040, RoHS-Compliant Commencing With 01/01/2006 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Union (2011/65/EU), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitions and **Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control"

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)

The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of issuance. This document is intended to provide guidance for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to provide regulatory information for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory requirements. Authorized Signatory for the Alpha Wire:

A handwritten signature in blue ink, appearing to read 'QBW', with a long horizontal line extending to the right.

Dave Watson, Director of Engineering & QA 02/08/2025

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