

PART NO. M8748500

	Diameters (In)	
1) Component 1	50 X 1 PAIR	
a) Conductor	18 (7/.0152) AWG Bare Copper	0.046
b) Insulation	0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.088
(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	18	BLACK-WHITE#18	35	BLACK-WHITE#35
2	BLACK-WHITE#2	19	BLACK-WHITE#19	36	BLACK-WHITE#36
3	BLACK-WHITE#3	20	BLACK-WHITE#20	37	BLACK-WHITE#37
4	BLACK-WHITE#4	21	BLACK-WHITE#21	38	BLACK-WHITE#38
5	BLACK-WHITE#5	22	BLACK-WHITE#22	39	BLACK-WHITE#39
6	BLACK-WHITE#6	23	BLACK-WHITE#23	40	BLACK-WHITE#40
7	BLACK-WHITE#7	24	BLACK-WHITE#24	41	BLACK-WHITE#41
8	BLACK-WHITE#8	25	BLACK-WHITE#25	42	BLACK-WHITE#42
9	BLACK-WHITE#9	26	BLACK-WHITE#26	43	BLACK-WHITE#43
10	BLACK-WHITE#10	27	BLACK-WHITE#27	44	BLACK-WHITE#44
11	BLACK-WHITE#11	28	BLACK-WHITE#28	45	BLACK-WHITE#45
12	BLACK-WHITE#12	29	BLACK-WHITE#29	46	BLACK-WHITE#46
13	BLACK-WHITE#13	30	BLACK-WHITE#30	47	BLACK-WHITE#47
14	BLACK-WHITE#14	31	BLACK-WHITE#31	48	BLACK-WHITE#48
15	BLACK-WHITE#15	32	BLACK-WHITE#32	49	BLACK-WHITE#49
16	BLACK-WHITE#16	33	BLACK-WHITE#33	50	BLACK-WHITE#50
17	BLACK-WHITE#17	34	BLACK-WHITE#34		
c) Pair				2/Cond Cabled Together	
(1) Twists:				4.8 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) Cable Assembly				50 Components Cabled	
a) Twists:				0.6 Twists/foot (min)	
b) Orientation:				Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
c) Core Wrap				Clear Mylar Tape, 25% Overlap, Min.	
3) Shield:				Alum/Mylar Tape, 25% Overlap, Min.	
a) Foil Direction				Foil Facing In	
b) Drain Wire				20 (7/28) AWG Tinned Copper	
4) Jacket				0.085" Wall, Nom.,PVC	
a) Color(s)				BLACK	
b) Ripcord				1 End 810 Denier Nylon	
c) Print				ALPHA WIRE-* P/N M8748500 50PR 18 AWG EXXXXXX (UL) TYPE TC-ER 600V 90C DRY 75C WET SUN. RES. DIR. BUR. CE ROHS * = Factory Code	

1) UL	TC	90°C / 600 V _{RMS}
	SUN RES	
	DIRECT BURIAL	
	EXPOSED RUN	
2) 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	-25 to 90°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	1716 Lbs, Maximum
4) Sunlight Resistance	Yes
5) Direct Burial	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	600 V _{RMS}
2) Mutual Capacitance	44 pF/ft @1 kHz, Nominal
3) Ground Capacitance	79 pF/ft @1 kHz, Nominal
4) Characteristic Impedance	49 Ω
5) Inductance	0.19 μH/ft, Nominal
6) Conductor DCR	6.7 Ω/1000ft @20°C, Nominal
7) Component Shield DCR	8.3 Ω/1000ft @20°C, Nominal
8) OA Shield DCR	4.4 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	48 x 26 x 18 Continuous length
b) 500 FT	48 x 26 x 18 Continuous length
c) 100 FT	48 x 26 x 18 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M8748500

M8748500, 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. **Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control"

Substance

Lead
Mercury
Cadmium
Hexavalent Chromium
Polybrominated Biphenyls (PBB)
Polybrominated Diphenyl Ethers (PBDE) ,
Including Deca-BDE
Bis(2-ethylhexyl) phthalate (DEHP)
Butyl benzyl phthalate (BBP)
Dibutyl phthalate (DBP)
Diisobutyl phthalate (DIBP)

Maximum Control Value

0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.01% by weight (100 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)

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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 a warranty or guarantee of any kind. Regulatory information is 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 15/09/2025

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