

## Customer Specification

**PART NO. M4677**

## Construction

				Diameters (In)	
1) Component 1		50 X 1 COND			
a) Conductor		20 (7/28) AWG Tinned Copper		0.038	
b) Insulation		0.016" Wall, Nom. PVC		0.070	
(1) Color Code		Alpha Wire Color Code D			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	18	WHITE/GREEN	35	WHITE/RED/RED
2	RED	19	WHITE/YELLOW	36	WHITE/RED/GREEN
3	WHITE	20	WHITE/BLUE	37	WHITE/RED/BLUE
4	GREEN	21	WHITE/BROWN	38	WHITE/RED/BROWN
5	ORANGE	22	WHITE/ORANGE	39	WHITE/RED/VIOLET
6	BLUE	23	WHITE/SLATE	40	WHITE/GREEN/BLACK
7	BROWN	24	WHITE/VIOLET	41	WHITE/GREEN/RED
8	YELLOW	25	WHITE/BLACK/RED	42	WHITE/GREEN/GREEN
9	VIOLET	26	WHITE/BLACK/GREEN	43	WHITE/GREEN/BLUE
10	SLATE	27	WHITE/BLACK/YELLOW	44	WHITE/GREEN/BROWN
11	PINK	28	WHITE/BLACK/BLUE	45	WHITE/GREEN/VIOLET
12	TAN	29	WHITE/BLACK/BROWN	46	WHITE/BLUE/BLACK
13	RED/GREEN	30	WHITE/BLACK/ORANGE	47	WHITE/BLUE/RED
14	RED/YELLOW	31	WHITE/BLACK/SLATE	48	WHITE/BLUE/GREEN
15	RED/BLACK	32	WHITE/BLACK/VIOLET	49	WHITE/BLUE/BLUE
16	WHITE/BLACK	33	WHITE/BLACK/BLACK	50	WHITE/BLUE/BROWN
17	WHITE/RED	34	WHITE/RED/BLACK		
2) Cable Assembly		50 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, 20% Overlap, Min.			
3) Shield:		Alum/Mylar Tape, 20% Overlap, Min.			
a) Foil Direction		Foil Facing In			
b) Drain Wire		20 (7/28) AWG Tinned Copper			
4) Jacket		0.053" Wall, Nom.,PVC		0.685 (0.714 Max.)	
a) Color(s)		SLATE			
b) Ripcord		1 End 810 Denier Nylon			
c) Print		ALPHA WIRE-* P/N M4677 50C 20 AWG EXXXXXX SHIELDED 75C CMG (UL) C(UL) OR AWM 2464 CE ROHS * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

## Applicable Specifications

1) UL	AWM/STYLE 2464	80°C / 300 V <sub>RMS</sub>
	CMG	75°C
2) CSA International	FT4	
	C(UL) TYPE CMG	75°C
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 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	446 Lbs, Maximum
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	45 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	81 pF/ft @1 kHz, Nominal
4) Inductance	0.19 µH/ft, Nominal
5) Conductor DCR	10.3 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	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	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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# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M4677

M4677, RoHS-Compliant Commencing With 01/11/2003 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 "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

## 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 its release. The information provided is designed only as a general guide 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 be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 18/05/2024

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