



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

Customer Specification

PART NO. M4650

Construction

				Diameters (In)	
1) Component 1		40 X 1 COND			
a) Conductor		22 (7/30) AWG TC		0.030	
b) Insulation		0.010" Wall, Nom. PVC, Semi Rigid		0.050	
(1) Color Code		Alpha Wire Color Code E			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	15	WHITE/YELLOW	29	WHITE/BROWN/ORANGE
2	BROWN	16	WHITE/GREEN	30	WHITE/BROWN/YELLOW
3	RED	17	WHITE/BLUE	31	WHITE/BROWN/GREEN
4	ORANGE	18	WHITE/VIOLET	32	WHITE/BROWN/BLUE
5	YELLOW	19	WHITE/SLATE	33	WHITE/BROWN/VIOLET
6	GREEN	20	WHITE/BLACK/BROWN	34	WHITE/BROWN/SLATE
7	BLUE	21	WHITE/BLACK/RED	35	WHITE/RED/ORANGE
8	VIOLET	22	WHITE/BLACK/ORANGE	36	WHITE/RED/YELLOW
9	SLATE	23	WHITE/BLACK/YELLOW	37	WHITE/RED/GREEN
10	WHITE	24	WHITE/BLACK/GREEN	38	WHITE/RED/BLUE
11	WHITE/BLACK	25	WHITE/BLACK/BLUE	39	WHITE/RED/VIOLET
12	WHITE/BROWN	26	WHITE/BLACK/VIOLET	40	WHITE/RED/SLATE
13	WHITE/RED	27	WHITE/BLACK/SLATE		
14	WHITE/ORANGE	28	WHITE/BROWN/RED		
2) Cable Assembly		40 Components Cabled			
a) Twists:		2.2 Twists/foot (min)			
b) 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		22 (7/30) AWG TC			
4) Jacket		0.032" Wall, Nom.,PVC		0.436 (0.459 Max.)	
a) Color(s)		SLATE			

b) Ripcord	1 End 810 Denier Nylon	
c) Print	ALPHA WIRE-* P/N M4650 40C 22 AWG EXXXXXX SHIELDED 75C CMG (UL) C(UL) OR AWM 2464 CE ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>	

Applicable Specifications

1) UL	AWM/STYLE 2464	80°C / 300 V _{RMS}
	CMG	75°C
2) CSA International	FT4	
	C(UL) TYPE CMG	75°C
3) CE:	EU Low Voltage Directive 2006/95/EC	

Environmental

1) CE: EU Directive 2011/65/EU(RoHS2):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for RoHS C of C.
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. For up-to-date information, please see Alpha's REACH SVHC Declaration.
3) California Proposition 65:	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	225 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V _{RMS}
2) Capacitance	36 pf/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	65 pf/ft @1 kHz, Nominal
4) Inductance	0.18 µH/ft, Nominal
5) Conductor DCR	16.5 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	9.2 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 12 x 8 Continuous length
c) 100 FT	12 x 10 x 5 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: M4650

M4650 , RoHS-Compliant Commencing With 11/1/2004 Production

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. 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 11364-2006.

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)

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 Company:

A handwritten signature in black ink, appearing to read 'Dave Watson'.

Dave Watson, Director of Engineering & QA

5/14/2013