

## Customer Specification

**PART NO. 5100/40C**

## Construction

						Diameters (In)		
1) Component 1						40 X 1 COND		
a) Conductor						24 (7/32) AWG Tinned Copper		0.024
b) Insulation						0.010" Wall, Nom. PVC, Semi Rigid		0.044
(1) Color Code						Alpha Wire Color Code E		
Cond	Color	Cond	Color	Cond	Color			
1	BLACK	15	WHITE/YEL	29	WHITE/BROWN			
2	BROWN	16	WHITE/GRY	30	WHITE/BROWN			
3	RED	17	WHITE/BLU	31	WHITE/BROWN			
4	ORANGE	18	WHITE/VIO	32	WHITE/BROWN			
5	YELLOW	19	WHITE/SLT	33	WHITE/BROWN			
6	GREEN	20	WHITE/BLU	34	WHITE/BROWN			
7	BLUE	21	WHITE/BLU	35	WHITE/RED			
8	VIOLET	22	WHITE/BLU	36	WHITE/RED			
9	SLATE	23	WHITE/BLU	37	WHITE/RED			
10	WHITE	24	WHITE/BLU	38	WHITE/RED			
11	WHITE/BL	25	WHITE/BL	39	WHITE/RED			
12	WHITE/BR	26	WHITE/BL	40	WHITE/RED			
13	WHITE/RE	27	WHITE/BL					
14	WHITE/OR	28	WHITE/BR					
2) Cable Assembly						40 Components Cabled		
a) Twists:						2.5 Twists/foot (min)		
b) Orientation:						Components to be arranged from INSIDE LAYER to OUTSIDE LAYER		
c) Core Wrap						Nonwoven Polyester Tape, 20% Overlap, Min.		
3) Shield:						Alum/Mylar Tape, 20% Overlap, Min.		
a) Foil Direction						Foil Facing In		
b) Drain Wire						24 (7/32) AWG Tinned Copper		
4) Jacket						0.032" Wall, Nom.,PVC		0.394 (0.417 Max.)
a) Color(s)						Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White		
b) Ripcord						1 End 810 Denier Nylon		
c) Print						ALPHA WIRE-* P/N 5100/40C 40C 24 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C SUN RES OR AWM 2464 80C 300V OR AWM 2517 105C 300V VW-1 --- LLXXXXXX CSA 105C TYPE CMG FT4 CE ROHS OIL RESISTANT (SEQ FOOTAGE) * = 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	-35 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	144 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	31 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	56 pF/ft @1 kHz, Nominal
4) Inductance	0.19 µH/ft, Nominal
5) Conductor DCR	26 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	13.4 Ω/1000ft @20°C, Nominal

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 14.25 x 8 Continuous length
b) 500 FT	18 x 9 x 8 Continuous length
c) 100 FT	12 x 5.94 x 5 Continuous length
d) Bulk(Made-to-order)	
	[Spool dimensions may vary slightly]
Notes:	
a) Oil Resistant Jacket (7d @ 60C).	

[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: 5100/40C

5100/40C, RoHS-Compliant Commencing With 8/1/2005 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

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 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 9/3/2025

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