

## Customer Specification

### PART NO. 5480/50C

#### Construction

	<b>Diameters ("in")</b>	
1) Component 1	50 x 1 PAIR	
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 C	

Pair	Color	Pair	Color	Pair	Color
1	BLUE-WHITE	18	BROWN/WHITE	35	GREEN/WHITE
2	ORANGE-WHITE	19	BROWN/SLATE	36	GREEN/BROWN
3	GREEN-WHITE	20	SLATE/WHITE	37	GREEN/SLATE
4	BROWN-WHITE	21	BLUE-RED	38	BROWN/WHITE
5	SLATE-WHITE	22	ORANGE-RED	39	BROWN/SLATE
6	BLUE/WHITE	23	GREEN-RED	40	SLATE/WHITE
7	BLUE/ORANGE	24	BROWN-RED	41	BLUE-BLACK
8	BLUE/GREEN	25	SLATE-RED	42	ORANGE-BLACK
9	BLUE/BROWN	26	BLUE/WHITE	43	GREEN-BLACK
10	BLUE/SLATE	27	ORANGE-RED	44	BROWN-BLACK
11	ORANGE/WHITE	28	BLUE/GREEN	45	SLATE-BLACK
12	ORANGE/GREEN	29	BROWN-RED	46	BLUE/WHITE
13	ORANGE/BROWN	30	SLATE-RED	47	BLUE/ORANGE
14	ORANGE/SLATE	31	ORANGE/WHITE	48	GREEN-BLACK
15	GREEN/WHITE	32	ORANGE/GREEN	49	BROWN-BLACK
16	GREEN/BROWN	33	ORANGE/WHITE	50	SLATE-BLACK
17	GREEN/SLATE	34	ORANGE/SLATE		

c) Pair	2/Cond Cabled Together	
(1) Twists	9.6 Twists/foot (min.)	
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	
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	0.053" Wall, Nom. PVC	0.699 (0.739 max.)
a) Color(s)	SLATE	
b) Print	ALPHA WIRE-* P/N 5480/50C 50PR 24 AWG SHIELDED 75C (UL) TYPE CM OR AWM 2464 OR C(UL) 60C TYPE CMG FT4 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>
	CM	75°C
2) CSA International	C(UL) TYPE CMG	60°C
	FT4	
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 detail.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	355 lbs. (max.)
Electrical Properties	
For Engineering purposes only	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Mutual Capacitance	22.5 pF/ft @1 kHz, Nominal
3) Ground Capacitance	40 pF/ft @1 kHz, Nominal
4) Characteristic Impedance	83 $\omega$
5) Inductance	0.19 $\mu$ H/ft, Nominal
6) Conductor DCR	26 $\omega$ /1000ft @20°C, Nominal
7) OA Shield DCR	10.2 $\omega$ /1000ft @20°C, Nominal

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 1000 FT	36 x 14 x 12 Continuous Length
b) 500 FT	30 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)

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374

Tel: 1-800-52 ALPHA

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2200 US Highway 27 South  
Richmond, IN 47374  
Tel: 1-800-52 ALPHA  
Web: [www.alphawire.com](http://www.alphawire.com)

## EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5480/50C

5480/50C, 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	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:

A handwritten signature in blue ink that reads "Dave Watson".

Dave Watson, Director of Engineering 11/6/2025

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374  
Tel: 1-908-925-8000