2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-800-52 ALPHA
Web: www.alphawire.com

Customer Specification

PART NO. SF61224CY

Construction

	Diameters (In)	
1) Component 1	4 X 1 COND	
a) Conductor	8 (168(7x24)/30) AWG Tinned Copper	0.168
b) Insulation	0.032" Wall, Nom. PVC/ 0.006" Wall NYLON	0.244
(1) Print	ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
(2) Color Code	Alpha Wire Color Code KX	

Cond	Color	Cond	Color	Cond	Color
1	GREEN/YELLOW	3	BLACK#2		
2	BLACK#1	4	BLACK#3		

2) Component 2	2 X 1 PAIR	
a) Conductor	16 (26/30) AWG Tinned Copper	0.060
b) Insulation	0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.102
(1) Color Code	Alpha Wire Color Code A	

Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED	2	BLACK-WHITE		

c) Pair	2/Cond Cabled Together	
(1) Twists:	5.3 Twists/foot (min)	
Individually Applied:		
d) Shield:	Flex Alum/Mylar Tape, 25% Overlap, Min.	
(1) Foil Direction	Foil Facing Out	
(2) Drain Wire	22 (7/30) AWG Tinned Copper	
(3) Braid	Tinned Copper,85% Coverage, Min.	
e) Jacket	0.016" Wall, Nom.,TPE	0.262 (0.273 Max.)
(1) Color(s)	NATURAL	
(2) Print	ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED	
3) Cable Assembly	6 Components Cabled	
a) Twists:	1.7 Twists/foot (min)	
b) Orientation:	Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
c) Core Wrap	REMAY Tape, 25% Overlap, Min.	
4) Shield:	A/P/A Tape, 25% Overlap, Min.	
a) Drain Wire	22 (7/30) AWG Tinned Copper	
b) Braid	Tinned Copper,85% Coverage, Min.	
5) Jacket	0.085" Wall, Nom.,TPE	0.972+/- 0.039
a) Color(s)	ORANGE	
b) Jacket Separator	Tissue Tape, 25% Overlap, Min.	
c) Print	ALPHA WIRE-* P/N SF61224CY 4C8 THHN 2PR16 TFFN E324185 (UL) WTTC 90C 1000 VOLT OR (UL) TC-ER 90C 600V OIL RES I/II SUN RES OR C(UL) CIC CONTROL/TC 90C PVC/NYLON INS SHIELDED FT4 4C8 2PR16 --- LLXXXXXX CSA AWM I/II A/B 90C 600V FT4 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code *[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]*	

Applicable Specifications

1) UL		
a) Component 1	THHN	90°C / 600 V_{RMS}
b) Component 2	TFFN	90°C / 600 V_{RMS}
c) Overall	TC	90°C / 600 V_{RMS}
	EXPOSED RUN	
	OIL RES I/II	
	SUN RES	
	WTTC	90°C / 1000 V_{RMS}
2) CSA International	AWM I/II A/B	90°C / 600 V_{RMS}
	FT4	
	C(UL) CIC CONTROL	90°C / 600 V_{RMS}
	C(UL) TC	90°C / 600 V_{RMS}
3) Other	Conductors NEMA Class K	
4) CE:	EU Low Voltage Directive 2014/35/EC	

Environmental

1) EU Directive 2011/65/EU(RoHS2):	
	All materials used in the manufacture of this part are in compliance with European Directive 2011/65/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. 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	-30 to 90°C(static), -5 to 90°C (dynamic)
2) Bend Radius	10X Cable Diameter(static), 10X Cable Diameter(dynamic)
3) Pull Tension	657 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	600 V_{RMS}
2) Component 1	
a) Capacitance	57 pF/ft @1 kHz, Nominal Conductor to Conductor
b) Ground Capacitance	103 pF/ft @1 kHz, Nominal
c) Inductance	0.16 µH/ft, Nominal
d) Conductor DCR	0.7 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Mutual Capacitance	53 pF/ft @1 kHz, Nominal
b) Ground Capacitance	95 pF/ft @1 kHz, Nominal
c) Characteristic Impedance	41 Ω
d) Inductance	0.18 µH/ft, Nominal
e) Conductor DCR	4.6 Ω/1000ft @20°C, Nominal
f) Component Shield DCR	3.1 Ω/1000ft @20°C, Nominal
4) OA Shield DCR	0.91 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	36 x 14 x 12 Continuous length
c) 100 FT	24 x 14 x 12 Continuous length
	[Spool dimensions may vary slightly]
Notes:	
a) Suitable for use in Industrial Machinery per the requirements of NFPA-79	
b) Suitable for intermittent or light duty flexing where cycle count will be less than 1,000,000 cycles.	

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: SF61224CY

SF61224CY, RoHS-Compliant Commencing With 2/9/2009 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:

Dave Watson, Director of Engineering 11/6/2025

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