

## Customer Specification

**PART NO. SF61223CY**

## Construction

					Diameters (In)	
1) Component 1		4 X 1 COND				
a) Conductor		10 (105/30) AWG Tinned Copper			0.118	
b) Insulation		0.022" Wall, Nom. PVC/ 0.005" Wall NYLON			0.172	
(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:		2.0 Twists/foot (min)				
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER				
c) Core Wrap		REMAI 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		0.065" Wall, Nom.,TPE			0.792+/- 0.037	
a) Color(s)		ORANGE				
b) Jacket Separator		Tissue Tape, 25% Overlap, Min.				
c) Print		ALPHA WIRE-* P/N SF61223CY 4C10 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 4C10 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

--



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	459 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	600 V <sub>RMS</sub>
2) Component 1	
a) Capacitance	61 pF/ft @1 kHz, Nominal Conductor to Conductor
b) Ground Capacitance	110 pF/ft @1 kHz, Nominal
c) Inductance	0.16 µH/ft, Nominal
d) Conductor DCR	1.11 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	0.8 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	30 x 14 x 12 Continuous length
c) 100 FT	24 x 14 x 12 Continuous length
	<i>[Spool dimensions may vary slightly]</i>
<b>Notes:</b>	
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.	

[www.alphawire.com](http://www.alphawire.com)

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374

Tel: 1-800-52 ALPHA

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure there accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha had been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

ALPHA WIRE - CONFIDENTIAL AND PROPRIETARY Notice to persons receiving this document and/or technical information. This document is confidential and is the exclusive property of ALPHA WIRE, and is merely on loan and subject to recall by ALPHA WIRE at any time. By taking possession of this document, the recipient acknowledges and agrees that this document cannot be used in any manner adverse to the interests of ALPHA WIRE, and that no portion of this document may be copied or otherwise reproduced without the prior written consent of ALPHA WIRE. In the case of conflicting contractual provisions, this notice shall govern the status of this document. ©2024 ALPHA WIRE - all rights reserved.



# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: SF61223CY

SF61223CY, RoHS-Compliant Commencing With 12/22/2008 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	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)

## Maximum Control Value

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 4/27/2024

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