

# Customer Specification

## PART NO. FIT-621-4

### Construction

1) Tubing Type	Adhesive Lined Heat Shrinkable Tubing
2) Tubing Material	Dual Wall Flexible PO w/Thick Wall Adhesive
3) Minimum Supplied ID(In)	4.000
4) Maximum Recovered ID(In)	0.898
5) Minimum Recovered Adhesive Wall Thickness(In)	0.155
6) Color(s)	BLACK

### Applicable Specifications

### Environmental

1) EU Directive 2002/95/EC(RoHS):	
	All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for compliance Date of Manufacture.
2) REACH Regulation (EC 1907/2006):	
	This product does not contain any of the 16 substances listed on the European Union's REACH Substance of Very High Concern (SVHC) candidate list in excess of 0.1% mass of the item.
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	-55 to 90°C	
2) Shrink Ratio	Approximately 5.6:1	
3) Full Recovery Temperature	121°C	
4) Tensile Strength	1200psi, Min	ASTM D638
5) Elongation	200%, Min	ASTM D638
6) Low Temperature Flex(-55°C)	no cracking	AMS-DTL-23053
7) Heat Resistance(175°C, 168hrs)	100% Elongation, Min	ASTM D638
8) Heat Shock(225°C, 4hrs)	no cracking	AMS-DTL-23053
9) Secant Modulus	$2.5 \times 10^4$ psi, Min	ASTM D882
10) Longitudinal Change	-10%	AMS-DTL-23053
11) Specific Gravity	1.40, Max	ASTM D792
12) Shelf Life	5 Years @ 18 to 35°C	
Electrical Properties		
1) Dielectric Strength	200 V/mil, Min	ASTM D876
2) Volume Resistivity	$1 \times 10^{13}$ ohm-cm, Min	ASTM D876
3) Dielectric Constant	3.1	IEC 250
Chemical Properties		
1) Water Absorption	0.50%, Max	ASTM D570
2) Corrosion(175°C, 16hrs)	no corrosion	AMS-DTL-23053
3) Fluid Resistance(23°C, 24 Hrs)	750 PSI, Min	AMS-DTL-23053
4) Fungus Resistance	Pass	AMS-DTL-23053
5) Halogen Free	Yes	
6) Lead Free	Yes	

## Other

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

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

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: FIT-621-4

FIT-621-4 , RoHS-Compliant Commencing With 5/1/2004 Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, 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 these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.***

<b>Substance</b>	<b>Maximum Control Value</b>
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.1% 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:

Dave Watson, Director of Engineering & QA

1/23/2011