



Customer Specification

PART NO. FIT-421-3IN

Construction

1) Tubing Type	Heat Shrinkable Tubing
2) Tubing Material	Cross Linked Polyolefin
3) Minimum Supplied ID(In)	3.000
4) Maximum Recovered ID (In)	0.810
5) Nominal Recovered Wall Thickness(In)	0.045
6) Color(s)	BLACK

Applicable Specifications

1) UL	VW-1	
	Standard 224	
2) Other	AMS-DTL-23053/5 Class 1 Overexpanded	

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 135°C	
2) Shrink Ratio	Approximately 4:1	
3) Full Recovery Temperature	121°C	
4) Minimum Shrink Temperature	90°C	
5) Tensile Strength	1500psi, Min	ASTM D638
6) Elongation	200%, Min	ASTM D638
7) Low Temperature Flex(-55°C)	no cracking	AMS-DTL-23053
8) Heat Resistance(175°C,168hrs)	100% Elongation, Min	ASTM D638
9) Heat Shock(250°C,4hrs)	no cracking	AMS-DTL-23053
10) Secant Modulus	2.5x10 ⁴ psi, Min	ASTM D882
11) Longitudinal Change	+5%/-15%	AMS-DTL-23053
12) Specific Gravity	1.35, Max	ASTM D792
13) Shelf Life	5 Years @ 18 to 35°C	
Electrical Properties		
1) Dielectric Strength	500 V/mil, Min	ASTM D876
2) Volume Resistivity	1x10 ¹⁴ ohm-cm, Min	ASTM D876
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)	1000 PSI, Min	AMS-DTL-23053
4) Fungus Resistance	Pass	AMS-DTL-23053
5) Halogen Free	No	
6) Lead Free	Yes	

Other

Packaging

www.alphawire.com

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

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EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: FIT-421-3IN

FIT-421-3IN, RoHS-Compliant Commencing With 5/1/2004 Production

This document certifies that the Alpha part number cited above are manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive, 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.** Additionally, Alpha certifies that the listed part number is in compliance China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

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)

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Authorized Signatory for the Alpha Wire Company:



Dave Watson, Director of Engineering & QA

1/30/2013