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

Customer Specification

PART NO. FIT-221-3/16

Construction

1) Tubing Type	Heat Shrinkable Tubing
2) Tubing Material	Cross Linked Polyolefin
3) Minimum Supplied ID(In)	0.187
4) Maximum Recovered ID (In)	0.093
5) Nominal Recovered Wall Thickness(In)	0.020
6) Color(s)	BLACK, WHITE, CLEAR, RED, YELLOW, BLUE, GREEN

Applicable Specifications

1) UL	Standard 224 (Except Clear)	
2) CSA International	Standard 198 (Except Clear)	
3) Other	AMS-DTL-23053/5 Class 1 (Except Clear)	
	AMS-DTL-23053/5 Class 2 (Clear Only)	

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):	
	All materials used in the manufacture of this part do not appear on the EU REACH Substance of Very High Concern (SVHC) candiate list.
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 2:1	
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 Shock(250°C,4hrs)	no cracking	AMS-DTL-23053
9) Secant Modulus	$2.5x10^{4}$ psi, Min	ASTM D882
10) Longitudinal Change	+/-5%	AMS-DTL-23053
11) Specific Gravity(Colors)	1.35, Max	ASTM D792
Specific Gravity(Clear)	1.00, Max	
12) 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(0°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) Vacuum Outgassing - CVCM	0.10%, Max	ASTM E595
6) Halogen Free	No	
7) Lead Free	Yes	

Other

Packaging

www.alphawire.com

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RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:FIT-221-3/16

FIT-221-3/16 , RoHS-Compliant Commencing With12/1/2004Production

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.***

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) Polybrominated Diphenyl Ethers (PBDE)	0.1% by weight (1000 ppm)
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 12/27/2011

Mouser Electronics

Authorized Distributor

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Alpha Wire:

F2213/16 BK002 F2213/16 CL002 F2213/16 BK147 F2213/16 BK005 F2213/16 CL005 F2213/16 BK103 F2213/16 CL007 F221B3/16 CL100 F221B3/16 CL204 FIT221V3/16 BK204 F2213/16 CL103 FIT2213/16 BK063 FIT2213/16 WH007 FIT221V3/16 BK002 FIT221B3/16 BK204 FIT2213/16 YL103 FIT221V3/16 BK103 FIT221V3/16 BK063 FIT221B3/16 BK100 FIT2213/16 YL002 FIT-CLEAR-3/16 CL005 FIT2213/16 CL103 FIT221B3/16 CL204 FIT2213/16 CL007 FIT221B3/16 CL100 FIT2213/16 CL005 FIT2213/16 BK103 FIT2213/16 BK005 FIT2213/16 BK147 FIT2213/16 BK002 FIT2213/16 CL002