

Customer Specification

PART NO. FIT-221L-1/16

Construction

1) Tubing Type	Heat Shrinkable Tubing
2) Tubing Material	LSZH Polyolefin
3) Minimum Supplied ID(In)	0.063
4) Maximum Recovered ID (In)	0.031
5) Nominal Recovered Wall Thickness(In)	0.014
6) Color(s)	BLACK

Applicable Specifications

1) UL	Standard 224	125°C / 600 V _{RMS}
	VW-1	

Environmental

1) EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	All materials used in the manufacture of this part are in compliance with European Directive 2011/65/EU, and the amending Directive 2015/863/EU of 4 June 2015 regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. regarding the restriction of use of certain hazardous substances in electrical and electronic equipment.
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.

Properties

Physical & Mechanical Properties		
1) Temperature Range	-55 to 125°C	
2) Shrink Ratio	Approximately 2:1	
3) Full Recovery Temperature	110°C	
4) Minimum Shrink Temperature	100°C	
5) Tensile Strength	1500psi, Min	ASTM D638
6) Elongation	200%, Min	ASTM D638
7) Low Temperature Flex(-30°C)	no cracking	AMS-DTL-23053
8) Heat Resistance(158°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%	AMS-DTL-23053
12) Shelf Life	25 Years @ 18 to 35°C	
Electrical Properties		
Chemical Properties		
1) Water Absorption	0.70%, Max	ASTM D570
2) Copper stability(158°C,168hrs)	100% Elongation, Min	UL 224
3) Corrosion(158°C,16hrs)	no corrosion	AMS-DTL-23053
4) Halogen Free	Yes	
5) Lead Free	Yes	

Other

Packaging	
1) 1000 FT	CR19-0.7: 19.75 x 0.75 x 8 Max. 3 pieces/Min length 125 FT.

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.

©2019 ALPHA WIRE - all rights reserved.



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

EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: FIT-221L-1/16

FIT-221L-1/16, RoHS-Compliant Commencing With 1/27/2014 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials is fully compliant 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. 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 this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. 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 11364-2006. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

Substance

Lead
Mercury
Cadmium
Hexavalent Chromium
Polybrominated Biphenyls (PBB)
Polybrominated Diphenyl Ethers (PBDE) ,
Including Deca-BDE
Bis(2-ethylhexyl) phthalate (DEHP)
Butyl benzyl phthalate (BBP)
Dibutyl phthalate (DBP)
Diisobutyl phthalate (DIBP)

Maximum Control Value

0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.01% by weight (100 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
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 1/11/2026

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