114-5076

Application Specification

Crimping AMPMODU MOD Ⅱ, Receptacle Contact

1. Scope:

This specification covers requirements for crimping AMPMODU MOD Ⅱ, receptacle contacts. These requirements specify crimping workmanship processed by both hand tool and automatic machine applications. For the proper wire size and insulation diameter of the wires to be used for termination, refer to the data shown in Fig. 5 and Fig. 6.

2. Crimping Terms:

For the purpose of this specification, the terms shown in Fig. 1, shall be used.

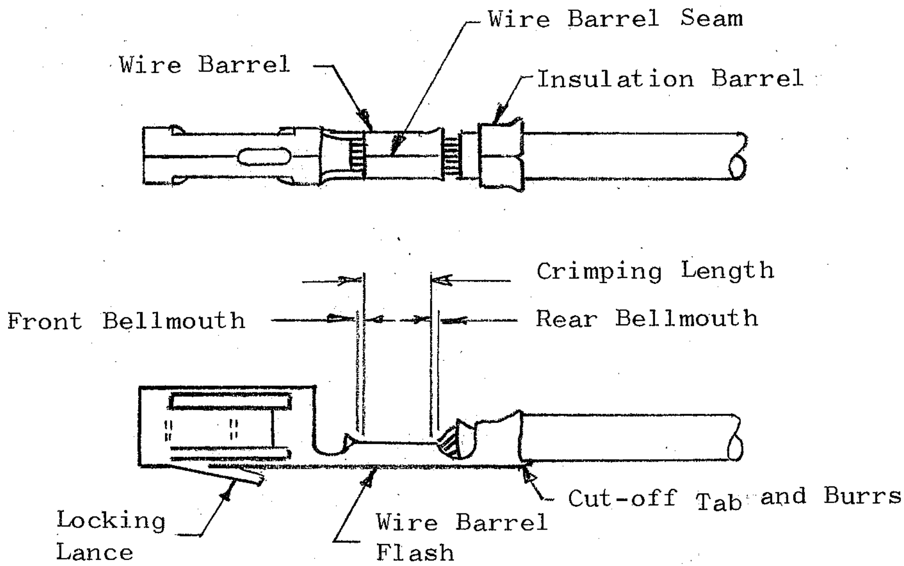

Fig. 1

3. Crimping and Dimensional Requirements:

3.1 Wire Cut-off and Insulation Stripping:

A. Insulation Stripping:

Insulation of wire end shall be removed to the length specified in Fig. 5.

B. Stripping Workmanship:

Insulation stripping shall be performed with care not to incur damages, cut, scratches, nick and entanglement of conductor strands, regardless of the type of conductors, i.e. stranded or solid wire.

3.2 Cut-off Tab and Burrs of Carrier Strip:

A. Cut-off Tab:

The length of cut-off tab shall not exceed 0.3mm.

B. Burrs:

The length of burrs shall not exceed 0.08mm.

3.3 Wire Barrel Crimp:

A. Crimping Dimensions and Type:

Crimp height, crimp width and type shall be conforming to the value specified in Fig. 5.

B. Crimp Tensile Strength:

Crimp tensile strength of the wire crimp shall be not less than the value specified in Fig. 5.

C. Crimping Length of Wire Barrel:

Crimping length of wire barrel shall be not less than 1.20mm. Crimping length is the length of wire crimp which is formed effectively as designated by the crimping action of application tooling. This length exclude front and rear bellmouths.

D. Wire Barrel Flash:

Wire barrel flash shall be not exceeding 0.20mm as shown in Fig. 2.

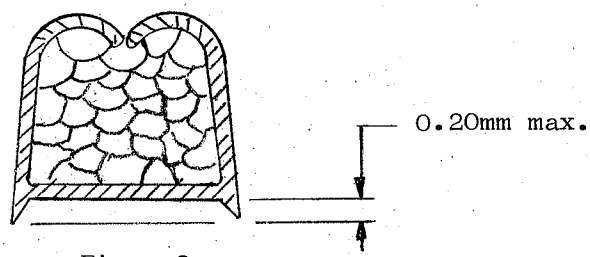

Fig. 2

E. Wire Barrel Seam:

Wire barrel seam shall be neatly closed without presence of gap through which strands are visible inside tha barrel, or any part of wire strands caught between the wire barrel edges appearing along or outside the wire barrel seam.

F. Bellmouth:

The length of rear bellmouth shall be within the range of 0.3mm - 0.7mm.

G. Wire End Protrusion:

(1) Wire end shall reach the flush level with the front edge of wire barrel, or exceed it, but not protruding more than 0.8mm beyond the front edge of wire barrel.

(2) The front end of stripped wire insulation shall not enter inside the wire barrel. It shall position between the rear edge of wire barrel and front edge of insulation barrel.

3.4 Crimping Insulation Barrel:

A. Crimping Dimension and Type:

Crimp height, crimp width and type of insulation barrel crimp shall be conforming to the value specified in Fig. 5.

B. Workmanship of Crimping Insulation Barrel:

Insulation barrel shall be properly crimped accordingly to fit the diameter of wire insulation. It shall grip the wire securely without cut or damages of insulation.

3.5 Crimped Deformation Control:

A. Straightness:

(1) After crimping, bend deformation upward and downward of contact to the contact axis, shall be within the limit including the length of cut-off tab and burrs, as specified in Fig. 3.

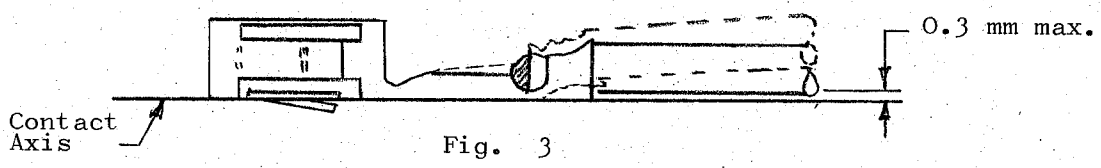

Fig. 3

(2) After crimping, bend deformation sidewise of contact to the contact axis, shall be within the limit as specified in Fig. 4.

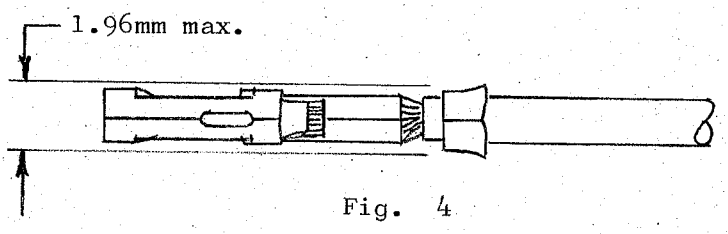

Fig. 4

B. Twist and Rolling Deformation:

In spite of the specified limits as stated in Para. 3.5.A (1) and (2), twisting (bias bending sideway) and/or rolling of contact to the contact axis shall be not present that are detrimental to connector functions, especially defective for contact loading in housing cavity and for mating unmating movement of contacts as they work for connection.

Fig. 5 Crimp Data of Applicator and Hand Tool

	Contact Part Number	Wire Size (AWG) mm² (One Wire)	Insulation Diameter (mm)	Wire Stripping Length mm	Wire Barrel Crimp				Insulation Barrel Crimp			Applicator or Hand Tool Catalog No.
					Width mm	Crimp Height mm	Crimp Type	Crimp Tensile Strength (kg)	Width mm	Insulation Crimp Height (mm)	Crimp Type	
Strip Form	172788 172656	0.3 (#22)	0.90-1.55	$3.2^{\pm 0.3}$	1.22	$0.75^{\pm 0.05}$	F	4.9	1.78	1.50	"O"	Applicator Number 752834-1 -2
		0.2 (#24)				$0.69^{\pm 0.05}$		3.1				
		0.13 (#26)				$0.64^{\pm 0.05}$		1.8				
	172789	0.08 (#28)	0.64-1.27		1.07	$0.52^{\pm 0.04}$		1.2				Applicator Number 752835-2
		0.05 (#30)						0.4				
Loose Piece Form	172790	0.3 (#22)	0.9 - 1.55	$3.2^{\pm 0.5}$	1.22	0.70-0.84	F	4.9	1.78	1.50	"O"	Hand Tool No. 752936-1
		0.2 (#24)	1.1 - 1.55			0.60-0.74		3.1				
		0.13 (#26)						1.8				
	172791	0.08 (#28)	1.0 - 1.27		1.07	0.45-0.56		1.2				Hand Tool No. 753765-1
		0.05 (#30)	0.64-0.90					0.4				

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Fig. 6 Applicable Wire Size

Wire Size (Nominal)		Conductor Composition		Calculated Cross-sectional Area (mm^2)
mm^2	(AWG)	Number of Strands	Diamter of a Strand(mm)	
0.3	(#22)	12	0.18	0.305
		17	0.16	0.342
		7	0.26	0.372
0.2	(#24)	19	0.12	0.215
		7	0.20	0.220
		11	0.16	0.221
0.14	(#26)	7	0.16	0.141
0.08	(#28)	7	0.12	0.079
		7	0.127	0.089
0.05	(#30)	7	0.102	0.05