APPLICATION SPECIFICATION

1. SCOPE

1.1. Content

This specification covers the requirements for application of commercial MATE-N-LOK* pin and socket contacts. These requirements are applicable to hand or automatic machine crimping tools. For specific wire and insulation ranges relative to the products covered in this specification see Figures 4 and 5.

1.2. Reference Specification

For applicable performance requirements see AMP Specification 108-1000.

2. NOMENCLATURE

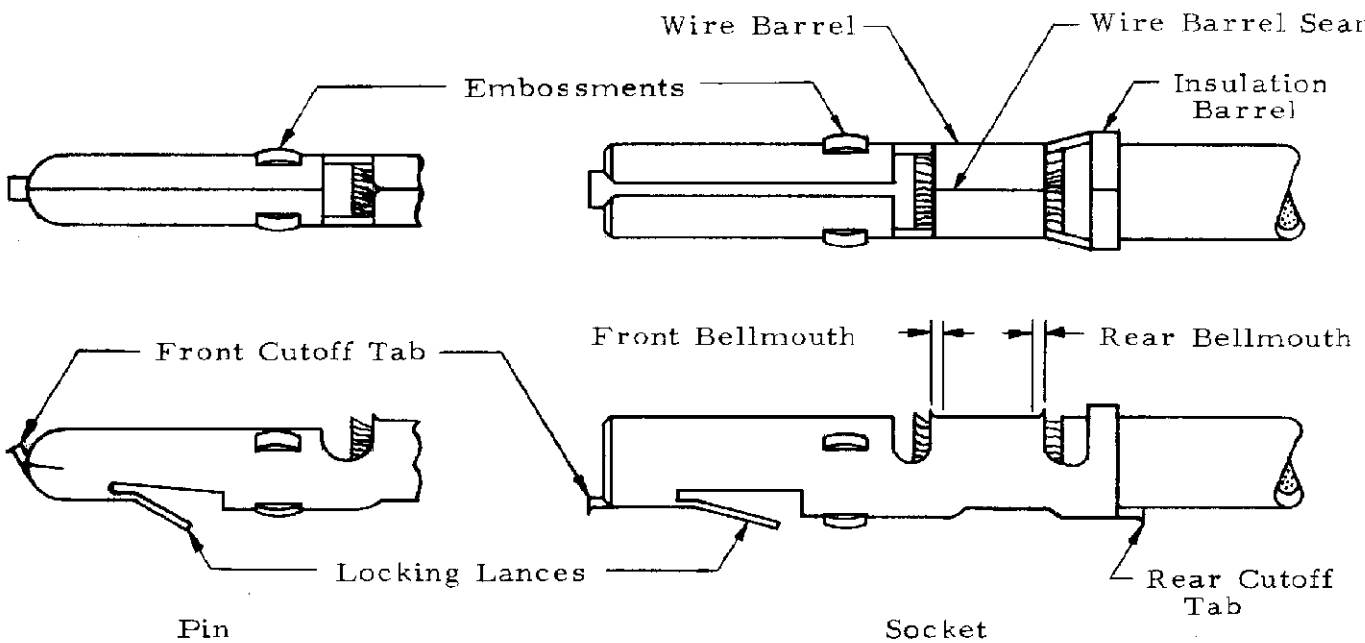

Figure 1

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DIST 01

DR C.E. Fritz 2-18-77
CHK A.E. Travis 2-18-77
APP F.J. Maltais 2-18-77

AMP | AMP INCORPORATED Harrisburg, Pa. 17105

LOC B | NO 114-1012 | REV D

SHEET 1 OF 6

TITLE
CONTACT, PIN AND SOCKET
MATE-N-LOK, COMMERCIAL

3. CRIMP AND DIMENSIONAL REQUIREMENTS

3.1. Wire Preparation

A. Strip Length

Insulation shall be stripped as indicated in Figures 4 and 5.

B. Workmanship

Reasonable care shall be taken not to nick, scrape or cut any strands or the solid wire during the stripping operation.

3.2. Carrier Cutoff Tab

A. Front cutoff tab shall not exceed .008 and shall be wiped upward toward the centerline on pin contacts.

B. Rear cutoff tab shall not exceed .015.

3.3. Wire Barrel Crimp

A. Crimp Dimensions and Type

Crimp height, width and type shall be as shown in Figures 4 and 5.

B. Tensile Strength

Crimp tensile strength shall be as shown in Figure 4.

C. Wire Barrel Seam

The wire barrel seam shall be closed adequately to confine all strands of the wire. There shall be no loose wire strands or wire strands embedded in the outside of the wire barrel.

D. Bellmouth

(1) Rear bellmouth length shall be .005-.030.

(2) Front bellmouth length shall be .010 maximum.

E. Conductor Location

(1) End of the wire shall be flush with the front end of the wire barrel or extend .047 maximum after crimping.

(2) Both insulation and conductor shall be visible between the insulation barrel and wire barrel. Care shall be taken not to allow insulation to be crimped in the wire barrel.

3.4. Insulation Barrel Crimp

A. Crimp Dimensions and Type

Crimp width and type shall be as shown in Figures 4 and 5.

B. Workmanship

Reasonable care shall be taken not to cut or break the insulation during the crimping operation.

3.5. Locking Lance

Locking lance shall not be deformed.

3.6. Embossments

Embossments on pin contact shall pass through a .113 maximum diameter circle and a .145 maximum diameter circle for socket contacts.

3.7. Alignment

A. Axial Concentricity

(1) Crimped insulation barrel shall fall into an area defined by a .160 diameter circle whose center is the centerline of the contact as shown in Figure 2, except PN 60989 which shall fall within a .200 diameter circle.

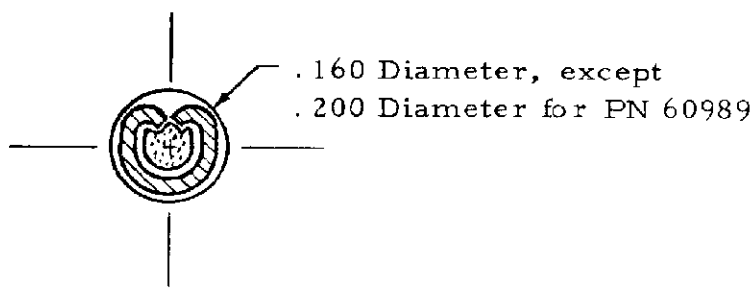

Figure 2

(2) Crimped insulation barrel of 2 conductor crimped contacts shall fall into an area defined by a .210 by .155 rectangle whose vertical center is the centerline of the contact and whose horizontal center is .030 above the centerline of the contact as shown in Figure 3.

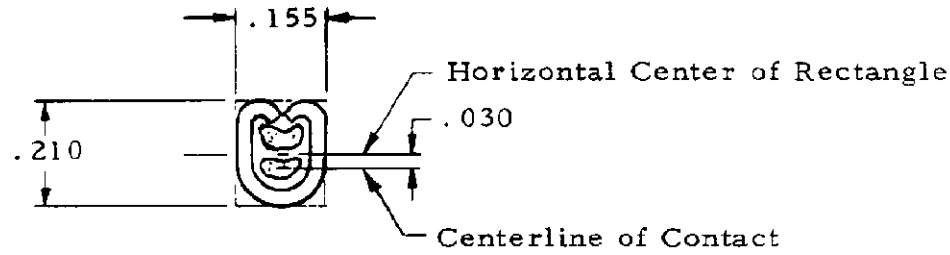

Figure 3

B. Twist or Roll

There shall be no twist or roll in crimped portion that will impair usage of the contact.

Part Numbers		Wires		Insulation Diameter, max	Strip Length	Wire Barrel Crimp				Insulation Barrel Crimp	
Pin	Socket	Qty	Size			Width	Height ±.002	Type Crimper	Tensile Strength, Pounds	Width	Type Crimper
61091 60910 350079	60909 350078 350178	1	30	.075	.187 .156	.055	.031	F	2	.090	F or O
		1	28				.032		3		
		1	26				.033		7		
		1	24				.035		10		
		1	22				.037		15		
60907 60511 61116	60964 60510 61115 61314	1	24	.100	.187 .156	.070	.038	F	10	.100	F or O
		1	22				.040		15		
		1	20				.043		20		
		1	18				.048		30		
61010	61009	1	24	.130	.187 .156	.070	.038	F	10	.130	F
		1	22				.040		15		
		1	20				.043		20		
		1	18				.048		30		
60528 61118	60527 61117	1	20	.130	.187 .156	.090	.047	F	20	.130	F or O
		1	18				.052		30		
		1	16				.059		30		
		1	14				.069		35		
	60989	1	18	.180	.187 .156	.090	.052	F	30	.170	F
		1	16				.059		30		
		1	14				.069		35		
	61036	1	22	.100	.187 .156	.062	.036	F	15	.100	F
		1	20				.040		20		
		1	18				.046		30		
60497 60958 350558	60496 350557	2	18	.115	.187 .156	.090	.062	F	30	.130	F
		1	18				.070		35		
		1	16								

Figure 4

Automatic Machine Wire Crimp Dimensions

Part Numbers		Wires		Insulation Diameter	Strip Length ±.015	Wire Barrel Crimp			Insulation Barrel Crimp		Hand Tool Part No
Pin	Socket	Qty	Size			Width	Height	Type Crimper	Width	Type Crimper	
61174	61173 350182	1	30	.040-.075	.187	.055	.0335±.0020	F	.070	O	90066-5
		1	28								
		1	26								
		1	24								
		1	22								
60618	60617 61473	1	24	.060-.100	.187	.080	.0385±.0020	F	.100	F	90123-2 (a)
		1	22								
		1	20								
		1	18				.049±.002				
61109	61108	1	24	.100-.130	.187	.070	.0385±.0020	F	.130	F	90123-4
		1	22								
		1	20								
		1	18				.049±.002				
60620	60619	1	20	.100-130	.187	.090	.053±.002	F	.130	F	90124-2
		1	18								
		1	16								
		1	14								
350639	350638	2	18	.115 max	.187	.090	.064±.003	F	.130	F	90124-2
		1	18								
		1	16								

(a) 90123-5 for .043-.075 insulation diameter.

Figure 5

Hand Tool Wire Crimp Dimensions