

APPLICATION SPECIFICATION

NUMBER 114-19004

AMP SECURITY CLASSIFICATION

1. SCOPE

This specification covers the requirements for installation of the ACTION PIN* parts of the AMP - 48 position receptacle connector into a printed board having through-plated holes.

2. PRINTED CIRCUIT BOARD

The printed circuit board thickness shall be $2,4 \pm 0,31$ mm minimum, the holes shall be located as shown in figure 2. The plated-through holes shall be as shown in figure 1. and 3. (Dimensions are in mm.)

Drilled hole dia	Plating thickness		Hole diameter		Copper Hardness (Knoop)	Positional Tolerance
	Copper	Tin-lead	After plating	After reflow		
$1,75 \pm 0,025$	0,025-0,075	0,008 min	1,54-1,69	1,51-1,69	150 max.	0,1 dia

FIGURE 1.

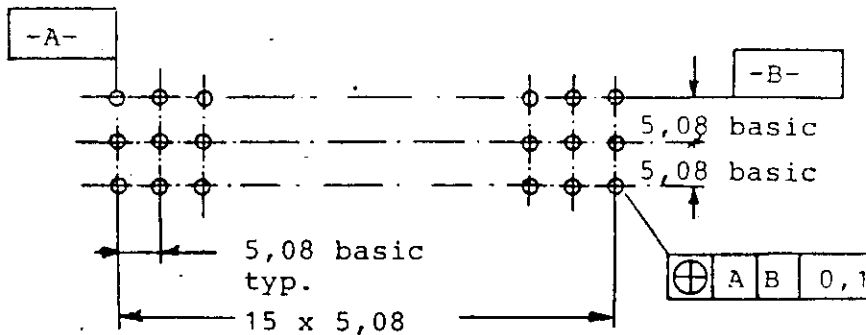


FIGURE 2.

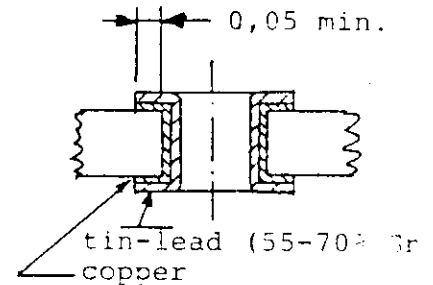


FIGURE 3.

3. INSTALLATION

3.1. General

Insert the posts of the connector by hand into the plated-through holes of the printed circuit board. For fully insertion of the ACTION PIN parts of a 48 position connector a force of 9000 Newton (maximum value), applied by a press, is required.

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DR	DATE	LOC	NO	REV
J. Brumma	July 3, '81	H	A	0
CHK	DATE			
APP	DATE			
SHEET 1 OF 3		NAME 48 position Receptacle connector with ACTION PIN feature (F48F-C1 DIN 41612)		
LTA	REVISION RECORD	DR	CHK	DATE

3.2 Lower tooling part

Dependent on the equipment, used to fully insert the ACTION PIN parts into the holes, different supports (lower tooling parts) can be used. See figures 1, 2 and 3.

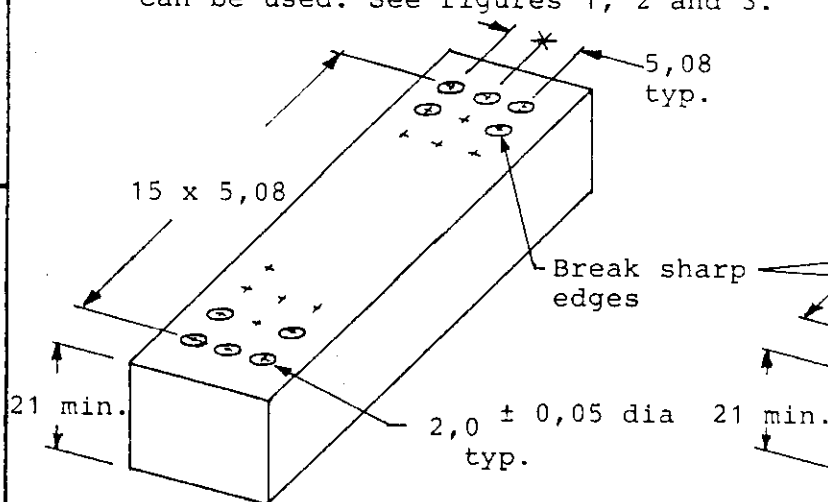


FIGURE 1.

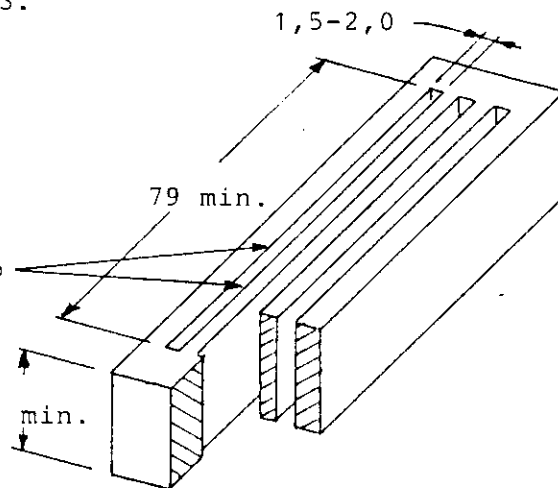


FIGURE 2.

The support as shown in figure 1. might be made from printed circuit board as used for the application of this connector. The holes of the upper board should then be re-drilled to $2,0 \pm 0,05$ dia.

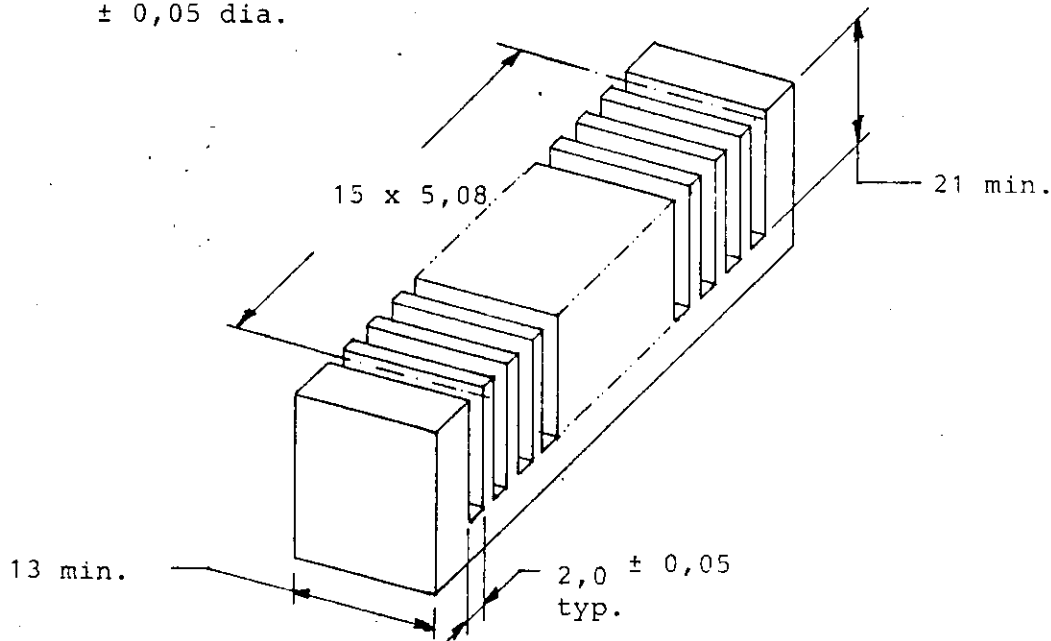


FIGURE 3.

SHEET		AMP		AMP HOLLAND N.V.	
2 OF 3				HERTOGENBOSCH	
LOC	H	NO	A	114-19004	REV
				0	
NAME 48 pos. Receptacle connector with					
ACTION PIN feature (F48F-C1					
H DIN 41512)					

The support fixtures as shown in figures 1, 2 and 3 shall be of such construction that the printed circuit board is not damaged and does not bend during inserting the ACTION PIN parts.

3.3. Upper tooling part - see figure 4.

The pushing surface shall be minimum 13 mm wide and minimum 85 mm long. The larger this plate is, the less critical the alignment of the plate will be with reference to the connector which is pre-inserted into the printed circuit board and resting on the support fixture. The pushing plate shall cover the full top surface of the connector during the insertion action. See figure 5.

The pushing plate shall have straight movement and be parallel, also under load, to the support fixture.

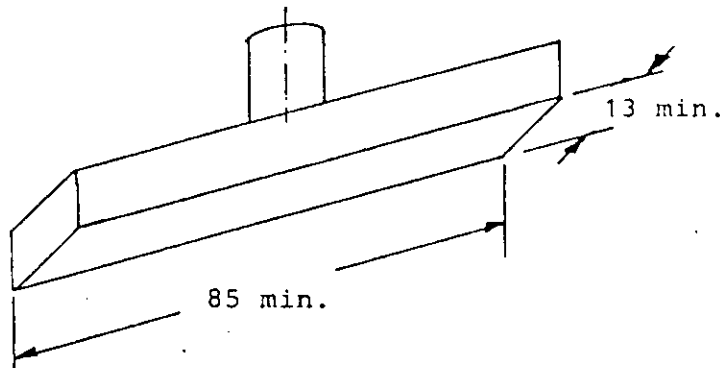


FIGURE 4.



FIGURE 5.

An adjustable stop on the equipment, which supplies the necessary force, is recommended. The stop shall be adjusted so that the insertion depth results in a clearance of 0-0,25 mm between the connector-stand-offs at both connector-ends and the printed circuit board. The stand-offs shall not be deformed by a too deep insertion.

A stop of the insertion stroke can also be accomplished as illustrated in figure 6. The lower tooling part shall then have supports at the same places where the upper stops are located.

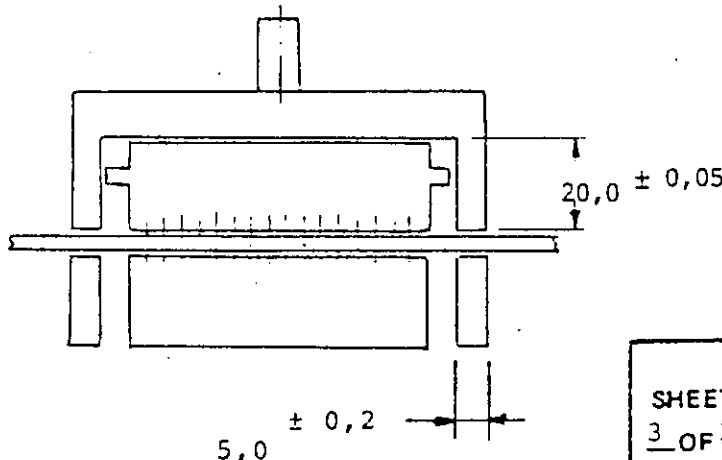


FIGURE 6.

SHEET		AMP		AMP-HOLLAND N.V.	
3 OF 3				HERTOGENBOSCH HOLLAND	
LOC	H	A	NO	114-19004	REV
NAME 48 position Receptacle connector with ACTION PIN feature (F8F-C1 H DIN 41612)					