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(54) **Low insertion force electrical connector with stress controlled contacts.**

(57) Multiple contact electrical connector with stress controlled connector spring contacts (40) is provided for use in making electrical contact with a plurality of conductive pads (54, 56) formed along an insertable edge (58) of a printed circuit board (12). The contacts (40) are mounted in slots (38) formed along an elongated cavity (14) in a connector housing (13). Each spring contact (40) includes opposed, deflectable contacting portions (50, 52) for engaging the conductive pads (54, 56). Portions (50, 52) are at different elevations to define an opening through which the edge (58) of the printed circuit board may be inserted in the cavity (14) with low or zero insertion force. Subsequently, the printed circuit board is rotated upright into a final contacting position, in which the conductive pads (54, 56) engage and deflect the contacting portions (50, 52) with a relatively high contact force. The connector housing includes first and second integrally formed stop faces (46, 48) respectively associated with each of the opposed contacting portions (50, 52) that control or limit the deflection of the contacting portions and the resultant stress imparted to the spring contacts. Latches (28) hold the printed circuit board (12) in its upright position against further stop faces (60) or posts (20, 22).

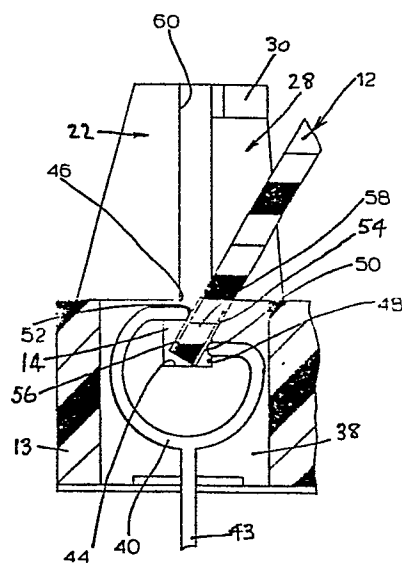


FIG. 2



European Patent
Office

EUROPEAN SEARCH REPORT

0158413

Application number

EP 85 30 1007

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	DE-B-2 537 281 (SIEMENS) * figure 2; column 2, lines 52-68 *	1,2	H 01 R 13/193 H 01 R 23/68
X	DE-A-2 434 628 (AMP) * figures 1-6; page 6, lines 10-32 * & US - A - 3 848 952 (Cat. D)	1,2,4	
A	DE-A-2 654 368 (TELEFONBAU) * figures 1, 2; page 5, line 5 - page 6, line 5 *	1,2	
A	DE-A-2 557 042 (HARTMANN & BRAUN) * figures 1-3; page 4, line 19 - page 6, line 8 *	1,2	
A,D	US-A-3 701 071 (LANDMAN) * the whole document *	1,4	H 01 R 13/193 H 01 R 23/68
A	DE-A-2 621 984 (PREH) * figures 1-3; claims 1-11 * & US - A - 4 136 917 (Cat. D)	1-4	
A,D	US-A-3 920 303 (PITTMAN et al.) * the whole document *	1,2	
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
BERLIN		06-01-1987	HAHN G
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DOCUMENTS CONSIDERED TO BE RELEVANT			Page 2
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A,D	US-A-3 795 888 (NARDO et al.) * the whole document * -----	1,2	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
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