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(54) **Title:** FORCE-BASED INPUT DEVICE

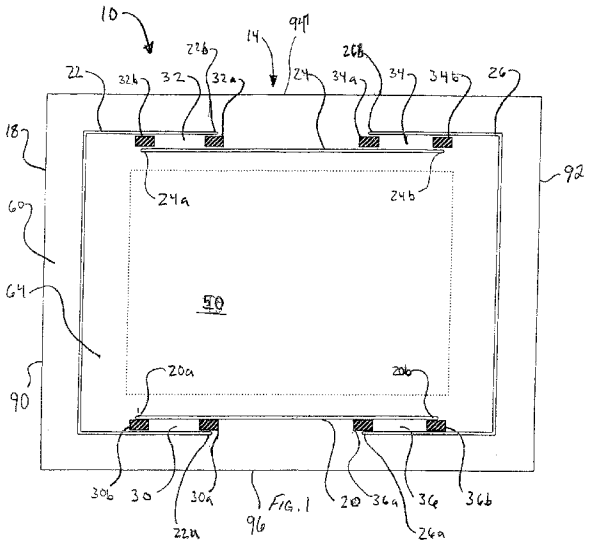


FIG. 1

(57) **Abstract:** Disclosed is an input device (10) comprising (a) a base support (14), having a periphery and a plurality of apertures (20, 22, 24, 26) formed therein to define a circumscribed or circumscribing input pad (50) configured to displace under the applied force; (b) a plurality of isolated beam segments (30, 32, 34, 36), defined by the plurality of apertures (20, 22, 24, 26) and operable to receive resultant forces distributed to the isolated beam segments (30, 32, 34, 36) by the displacement of the input pad (50); (c) at least two sensors (30a, 30b, 32a, 32b, 34a, 34b, 36a, 36b), disposed along each isolated beam segment (30, 32, 34, 36), and configured to measure the forces transmitted from the input pad (50) to the periphery and to output a signal corresponding to the applied force. One or more processing means operable with the plurality of sensors may be utilized to receive the signal and to determine at least one of a location and/or magnitude of the applied force acting on the input pad (50).

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