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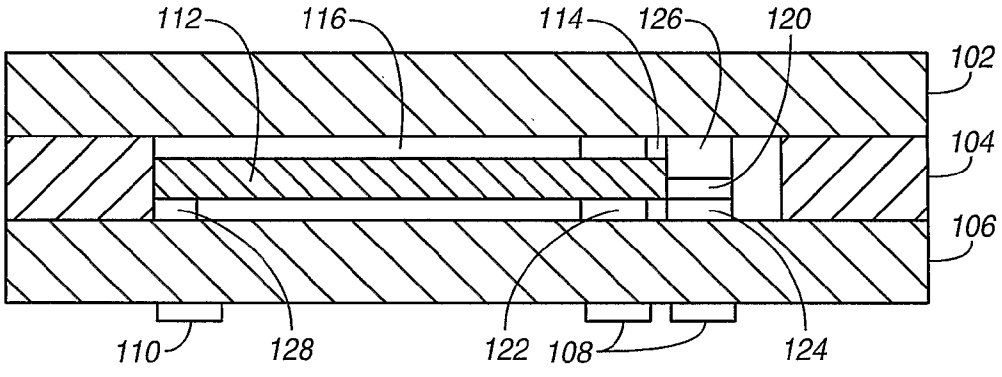
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(54) Title: INSERTING-FINGER LIQUID METAL RELAY



(57) Abstract: An electrical relay comprising having two wettable electrical contacts (118, 120) supporting a conducting liquid (126). A non-wettable switch finger (114) is moved between first and second positions between the electrical contacts by action of an actuator (130, 132 or 140). In the first position the switch finger permits the conducting liquid (126) to bridge the gap between the contacts (118, 120) and complete an electrical circuit between the contacts. In the second position the switch finger separates the conducting liquid into two volumes, breaking the electrical circuit between the contacts. The switch finger may be located at the free end of a beam (112) that is deflected or bent by the action of piezoelectric elements (130, 132 or 140).

WO 2004/095489 A1

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