Title (en)

Reed switch and manufacturing process for suspended three-dimensional metallic microstructures

Title (de)

Schutzrohrschalter und Herstellungsverfahren für aufgehängte dreidimensionale metallische Mikrostrukturen

Title (fr)

Contacteur "reed" et procédé de fabrication de microstructures métalliques tridimensionnelles suspendues

Publication

EP 0602538 B1 19970604 (FR)

Application

EP 93119829 A 19931209

Priority

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- FR 9215213 A 19921215

Abstract (en)

[origin: EP0602538A1] This "reed" switch (1) includes a base plane (2) comprising two separate conducting regions (12, 13). The two rods of the contactor have the shape of blades and each of them is integral with the base plane in the region of one of the conducting regions. One of the beams (19, 21) at least bears on the base plane via a foot on which it is mounted so as to overhang. The switch can be produced, for example, with the aid of the manufacturing process according to the invention. This process comprises the steps of successively forming, on a substrate, an alternation of photoresist and metallisation layers. At each step, the upper photoresist layer is configured to create, in the thickness of the latter, free spaces for growth in which metal lands are formed by galvanic growth. The photoresist layers situated under the last metallisation layer play the role of sacrificial layers and allow the formation of suspended metallic structures. <IMAGE>

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CPC (source: EP KR US)

H01H 1/0036 (2013.01 - EP US); **H01H 1/66** (2013.01 - EP US); **H01H 36/00** (2013.01 - KR); H01H 2001/0078 (2013.01 - EP US); H01H 2036/0093 (2013.01 - EP US)

Cited by

EP0844459A1; EP0874379A1; EP0980014A1; US6147790A; EP0688033A1; FR2721435A1; US5605614A; WO0104985A1

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