

Title (en)

MEMS CHIP, MEASURING ELEMENT AND PRESSURE SENSOR FOR MEASURING A PRESSURE

Title (de)

MEMS-CHIP, MESSELEMENT UND DRUCKSENSOR ZUM MESSEN EINES DRUCKS

Title (fr)

PUCE MEMS, ÉLÉMENT DE MESURE ET CAPTEUR DE PRESSION PERMETTANT DE MESURER UNE PRESSION

Publication

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Application

EP 14789767 A 20141002

Priority

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- CH 2014000142 W 20141002

Abstract (en)

[origin: WO2015048916A1] Micro-electro-mechanical system chip (MEMS chip) for measuring a pressure in a pressure space (D), comprising a MEMS substrate (30) and a carrier substrate (31) which are bonded to one another in a two-dimensional manner, wherein the MEMS chip (3) is in the form of a rod and has a measuring region (4) with electromechanical measuring means, then a bushing region (11), then a contact-making region (6) which is connected to the measuring region (4) via lines (8) and has contacts (16), and wherein the MEMS chip (3) in the bushing region (11) is suitable for pressure-tight arrangement in a bushing. According to the invention, the electromechanical measuring means are configured in such a manner that the MEMS substrate (30) has a cavity (5) forming a blind hole, the edge of which forms a membrane (7) in the MEMS substrate (30), and a measuring bridge (19) comprising piezoresistive elements (2) on that side of this membrane (7) which faces away from the cavity (5). The MEMS substrate (30) is bonded to the carrier substrate (31) with the side of the cavity (5) facing the carrier substrate (31), with the result that the carrier substrate (31) forms a bottom wall (50) of the cavity (5) formed under the membrane (7).

IPC 8 full level

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Citation (search report)

See references of WO 2015048916A1

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