

Title (en)
MICROMACHINED SENSOR WITH INSULATING PROTECTION OF CONNECTIONS

Title (de)
MIKROVERARBEITETER SENSOR MIT ISOLIERENDEM VERBINDUNGSSCHUTZ

Title (fr)
CAPTEUR MICRO-USINE AVEC PROTECTION ISOLANTE DES CONNEXIONS

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Application
EP 01963069 A 20010807

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Abstract (en)
[origin: WO0215256A1] The invention concerns sensors of physical quantities such as pressure or acceleration sensors, and more precisely the mounting of the sensor active part on a base (30) bearing connection pins (32). The invention is characterised in that it consists in preparing an active part of the sensor, consisting for example of micromachined silicon wafers (10, 12) bearing electronic elements, electrical conductors, and bond pads (22); likewise preparing a base (30) provided with pins (32) and electrically connecting the bond pads (22) to the pin ends with conductive elements (wires 40); then in immersing the wafer and the pin ends in an electrolytic solution, so as to perform an electrolytic plating of conductive metal (42) on the pin ends, the pads and the conductor elements connecting them; finally oxidizing and nitriding said metal to form an insulating coat (44) on the ends of the connection pins, the pads and the conductive elements connecting them. The invention is applicable to pressure, force, acceleration sensors and the like, designed to operate in harsh environment.

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