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# United States Patent [19]

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Reidemeister et al.

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## [54] ACCELEROMETER

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## [57] ABSTRACT

[21] Appl. No.: **790,956**

An accelerometer unit has a capacitor detect plate and a source place connector preferably defined respectively inside and outside a groove in one surface of a ceramic substrate. A flat metal member has an attachment portion secured in electrically conductive relation to the connector, has a source plate portion spaced over the detect plate to form a capacitor, and has integral resilient beams extending from the attachment portion to support the source plate portion spaced from the detect plate to be movable relative to the detect plate in response to acceleration force to provide an electrical signal. Preferably glass rods between the attachment member portion and source place connector facilitate the spacing. An electrically insulating housing base has integral pins extending through openings in the accelerometer unit substrate and in a separate electrical circuit unit to mount the circuit unit in spaced, overlying relation to the accelerometer unit, and an electrically conductive adhesive extends through guide holes in a gasket between the accelerometer and circuit units to electrically connect the circuit to the detect plate and to the connector on the ceramic substrate.

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**73/497; 361/280**

[58] Field of Search ..... **73/517 R, 517 B, 497,**  
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**283; 29/25.41; 338/4**

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33 Claims, 6 Drawing Sheets

