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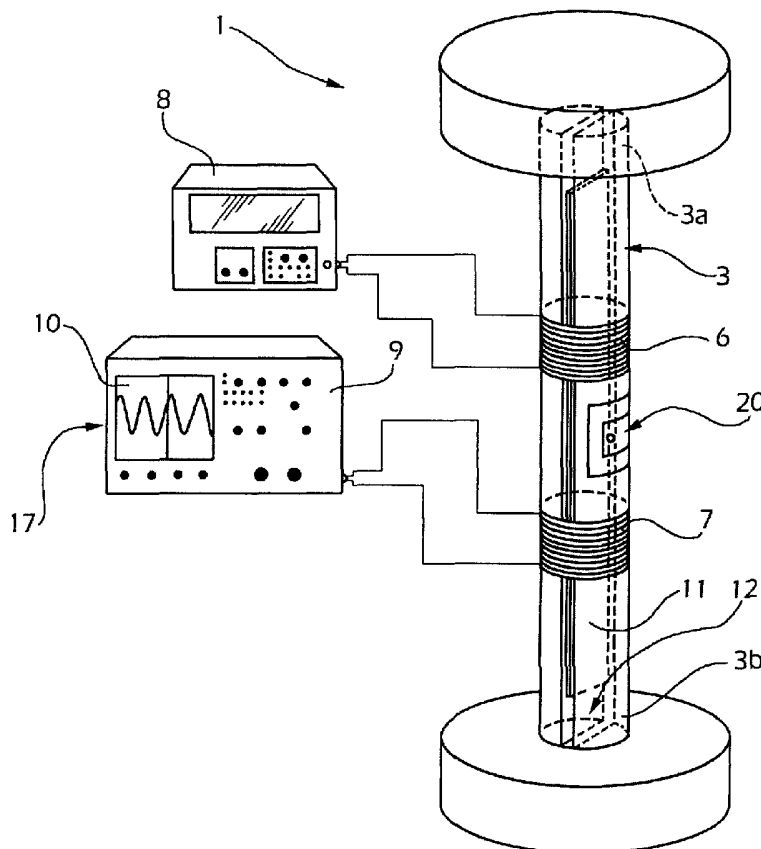
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(54) Title: A SENSOR AND A METHOD FOR MEASURING STATIC AND DYNAMIC MICRO-DEFORMATIONS



(57) Abstract: A magnetoelastic sensor (1) for detecting static and dynamic micro-deformations is described and comprises a magnetoelastic ferromagnetic element (11), an excitation coil (6) for sending an excitation signal to the ferromagnetic element (11), and a detection coil (7) for detecting a first signal emitted by the ferromagnetic element (11) as a consequence of the excitation signal. A sensor of this type is improved by the provision of a permanent magnet element (21) to be connected firmly to a body, the static and dynamic deformations of which are to be measured. A sensor of this type is also improved by the provision of a sheathing (12) of resilient material for the ferromagnetic element (11), fitted in a manner such that the ferromagnetic element (11) is at least partially embedded in the sheathing (12). A method of measuring static and dynamic micro-deformations is also described.



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According to International Patent Classification (IPC) or to both national classification and IPC

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Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 005, no. 173 (P-087), 5 November 1981 (1981-11-05) & JP 56 101527 A (YAZAKI CORP), 14 August 1981 (1981-08-14) abstract	1,2
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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