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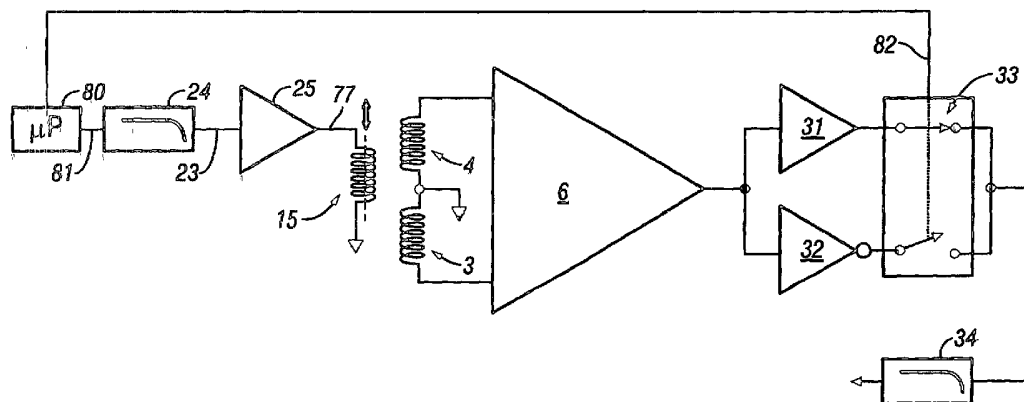
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LINEAR VARIABLE DIFFERENTIAL TRANSFORMER WITH DIGITAL ELECTRONICS



(57) Abstract: Techniques for coupling with devices that convert displacements into differential voltages and improve the sensitivity of such devices. The disclosed system improves the accuracy and resolution of a transducers such as an LVDT by converting certain parts of the circuit to a digital circuit. One embodiment uses a processor 80, although other digital processing circuitry may also be used.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/16807

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/40  
US CL : 702/198

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

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : Please See Continuation Sheet

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 practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                            | Relevant to claim No. |
|------------|---|-----------------------|
| A, P       | US 6,492,911 B1 (Netzer) 10 December 2002 (10.12.2002), column 21, lines 17-32.                               | 1-43                  |
| Y          | US 4,292,740 A (Vis et al.) 06 October 1981 (06.10.1981), column 3, lines 59-68.                              | 1-43                  |
| Y          | US 4,591,795 A (McCorkle) 27 May 1986 (27.05.1986), column 6, lines 42-52.                                    | 1-44                  |
| Y          | US 5,717,331 A (Deller et al.) 10 February 1998 (10.02.1998), column 3, lines 20-57.                          | 1-44                  |
| Y, P       | US 6,411,081 B1 (Spellman) 25 June 2002 (25.06.2002), column 3, lines 10-19.                                  | 1-44                  |
| Y          | US 5,473,244 A (Libove et al.) 05 December 1995 (05.12.1995), column 3, line 65 through column 4, lines 1-16. | 1-44                  |

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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**Continuation of B. FIELDS SEARCHED Item 1:**

73/1.79; 324/330, 331, 345, 200, 202, 207.11, 207.12, 207.13, 207.18, 207.23, 244, 252, 260, 600, 601, 607, 76.11, 76.28, 76.55; 702/70, 86, 94, 107, 190, 197, 198