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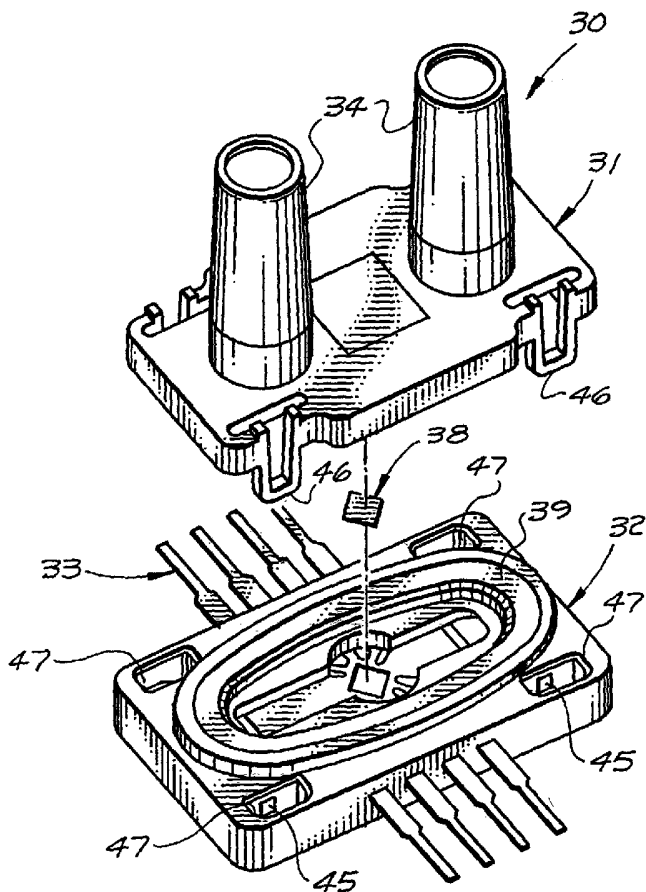
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[Continued on next page]

(54) **Title:** MICROELECTRONIC FLOW SENSOR



(57) **Abstract:** A system (3) for sensing or measuring the motion of a fluid (43) such as air. The system (30) typically has a two-part (31) plastic body containing an internal flow passage (41). The parts (31, 32) of the body may snap together with an adhesive. A transducer or an electronic sensor (38) is typically located within the flow passage (41), which may measure mass flow rate and may have two resistive thermal devices (RTDs) (54, 55) located on either side of a heat source (52). The body may have two elongated port tubes (34) configured to attach to tubing. The port tubes (34) may contain venturis (64), and may be substantially straight and substantially parallel, forming a U shape. A metal lead frame (33) may be provided in electrical communication with the sensor (38). The lead frame (33) may be integrally molded within the body, and may have a lower coefficient of thermal expansion than the body. The internal flow passage (41) and the sensor (38) may be substantially symmetrical and measure the flow rate of the fluid (43) substantially equally in either flow direction. The system (30) may be configured for surface mounting or for through-hole mounting, and may be a dual in-line type.



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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.*

INTERNATIONAL SEARCH REPORT

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<p><b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 G01F1/684</p> <p>According to International Patent Classification (IPC) or to both national classification and IPC</p>											
<p><b>B. FIELDS SEARCHED</b></p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC 7 G01F</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practical, search terms used)</p>											
<p><b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b></p> <table border="1"> <thead> <tr> <th>Category °</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td> <p>US 4 677 850 A (MIURA KAZUHIKO ET AL) 7 July 1987 (1987-07-07)</p> <p>column 3, line 9 -column 4, line 16; figures 3-5 column 7, line 57 -column 8, line 16; figure 14</p> </td> <td> <p>1-14, 17, 20-28, 32-34, 37, 39, 40</p> </td> </tr> <tr> <td>X</td> <td> <p>US 4 829 818 A (BOHRER PHILIP J) 16 May 1989 (1989-05-16)</p> <p>the whole document</p> </td> <td> <p>1-14, 17-28, 32-34, 37, 39, 40</p> </td> </tr> </tbody> </table>			Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	<p>US 4 677 850 A (MIURA KAZUHIKO ET AL) 7 July 1987 (1987-07-07)</p> <p>column 3, line 9 -column 4, line 16; figures 3-5 column 7, line 57 -column 8, line 16; figure 14</p>	<p>1-14, 17, 20-28, 32-34, 37, 39, 40</p>	X	<p>US 4 829 818 A (BOHRER PHILIP J) 16 May 1989 (1989-05-16)</p> <p>the whole document</p>	<p>1-14, 17-28, 32-34, 37, 39, 40</p>
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<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.      <input checked="" type="checkbox"/> Patent family members are listed in annex.</p>											
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<p>Date of the actual completion of the international search</p> <p>28 October 2002</p>		<p>Date of mailing of the international search report</p> <p>07/11/2002</p>									
<p>Name and mailing address of the ISA</p> <p>European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016</p>		<p>Authorized officer</p> <p>Boerrigter, H</p>									

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 3 825 876 A (DAMON N ET AL) 23 July 1974 (1974-07-23)  the whole document -----	1-3, 7-14, 26-28, 37, 39
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