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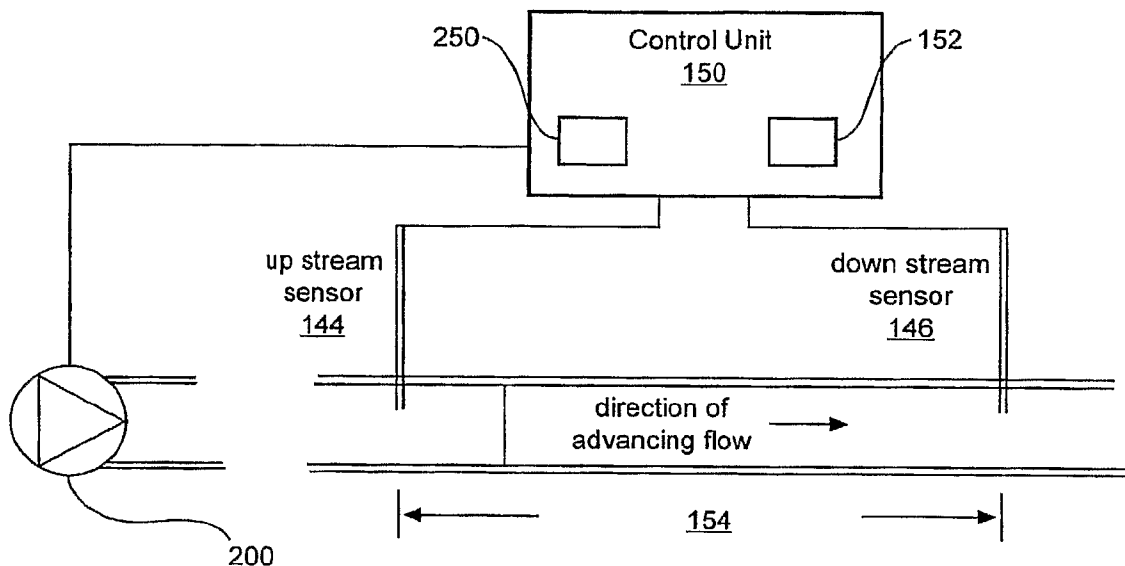
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(54) Title: FLUID DELIVERY DEVICE WITH AUTOCALIBRATION



(57) Abstract: A micro fluid delivery device is particularly useful in medical applications. The device may be worn or carried by the user and may deliver drugs or other medicaments to the user or patient. The device has a control system that accepts input from the user and controls all aspects of operation of the device. The control system measures the output of the pump and adjusts the output of the pump to achieve the desired dosage rate and size. This eliminates differences from pump to pump that result from inevitable variations in the manufacturing of such small scale affordable devices.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/14022

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC8 - G05D 7/00, G05D 11/00 (2007.01) USPC - 700/282 According to International Patent Classification (IPC) or to both national classification and IPC</p>																	
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC8 - G05D 7/00, G05D 11/00 (2007.01) USPC - 700/282</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched IPC8 - G05D7/00, G05D11/00 (2007.01) USPC - 700/282; 604/65, 67, 151, 152, 154, 156; 417/15, 20, 43, 212, 213, 213, 410.1, 410.2, 413.2, 413.3</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST (PGPB,USPT,EPAB,JPAB) Search terms sensor, detector, time, timing, speed, velocity, distance, stroke, dose, charge, calculate, measure, adjust, calibrate, normalize, two, second, plural, plurality volumetric, volume, intravenous, infusion, transfusion, insulin, syringe, piston, peristaltic</p>																	
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</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 -- Y</td> <td>US 5,211,626 A (FRANK et al.) 18 May 1993 (18.05.1993), entire document, esp., col 6, ln 62 to col 9, ln 39.</td> <td>1, 2, 13, 14, 16-18, 20, 21 ----- 3-12, 15, 19</td> </tr> <tr> <td>Y</td> <td>US 2005/0059926 A1 (SAGE, Jr et al.) 17 March 2005 (17.03.2005), entire document, esp., para [0033].</td> <td>3, 6</td> </tr> <tr> <td>Y</td> <td>US 2004/0115067 A1 (RUSH et al.) 17 June 2004 (17.06.2004), entire document, esp., para [0007] to [0042].</td> <td>4-12, 15, 19</td> </tr> <tr> <td>Y</td> <td>US 2004/0019321 A1 (SAGE et al.) 29 January 2004 (29.01.2004), esp., para [0076].</td> <td>11</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X -- Y	US 5,211,626 A (FRANK et al.) 18 May 1993 (18.05.1993), entire document, esp., col 6, ln 62 to col 9, ln 39.	1, 2, 13, 14, 16-18, 20, 21 ----- 3-12, 15, 19	Y	US 2005/0059926 A1 (SAGE, Jr et al.) 17 March 2005 (17.03.2005), entire document, esp., para [0033].	3, 6	Y	US 2004/0115067 A1 (RUSH et al.) 17 June 2004 (17.06.2004), entire document, esp., para [0007] to [0042].	4-12, 15, 19	Y	US 2004/0019321 A1 (SAGE et al.) 29 January 2004 (29.01.2004), esp., para [0076].	11
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p>																	
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"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</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"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	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed						
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<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>															