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(71) Applicant (for all designated States except US): **MICRO MOTION, INC.** [US/US]; 7070 Winchester Circle, Boulder, Colorado 80301 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BELL, Mark, James** [US/US]; 11787 North Beasley Road, Longmont, Colorado 80504 (US). **MCANALLY, Craig, B.** [US/US]; 594 East 131st Way, Thornton, Colorado 80241 (US). **ST.PIERRE, Richard, L., Jr.** [US/US]; 47 Royal Crest Drive, #11, North Andover, Massachusetts 01845 (US). **PATTEN, Andrew, Timothy** [US/US]; 123 Green Meadow Lane, Boulder, Colorado 80302 (US).

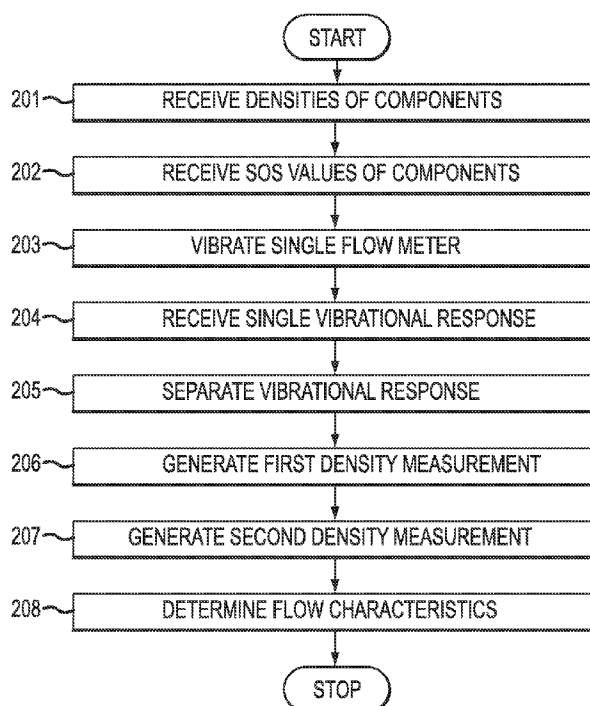
(74) Agents: **JANSEN, Gregg, L.** et al.; The Ollila Law Group LLC, 2060 Broadway, Suite 300, Boulder, Colorado 80302 (US).

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[Continued on next page]

(54) Title: FLOW METER SYSTEM AND METHOD FOR MEASURING FLOW CHARACTERISTICS OF A THREE PHASE FLOW



200

FIG. 2

(57) Abstract: A vibratory flow meter (5) for measuring flow characteristics of a three phase flow is provided according to the invention. The vibratory flow meter (5) includes a meter assembly (10) including pickoff sensors (105, 105') and meter electronics (20) coupled to the pick-off sensors (105, 105'). The meter electronics (20) is configured to receive a vibrational response from the pick-off sensors (105, 105'), generate a first density measurement of the three phase flow using a first frequency component of the vibrational response, and generate at least a second density measurement of the three phase flow using at least a second frequency component of the vibrational response. The at least second frequency component is a different frequency than the first frequency component. The meter electronics (20) is further configured to determine one or more flow characteristics from the first density measurement and the at least second density measurement.



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