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Valentine et al.

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(54) **SYSTEM AND METHOD FOR PROVIDING A SELF VALIDATING MASS FLOW CONTROLLER OR A MASS FLOW METER UTILIZING A SOFTWARE PROTOCOL**

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CPC F16K 3/36; G01F 1/00; G01F 1/12
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See application file for complete search history.

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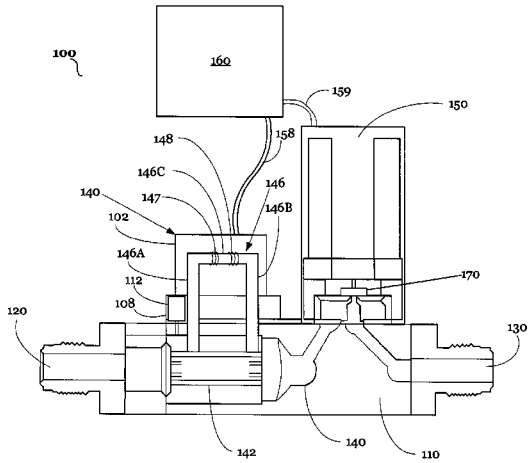
(57) **ABSTRACT**

The disclosed embodiments include a method, apparatus, and computer program product for verifying a performance of a mass flow controller or mass flow meter on a tool. For example, the disclosed embodiments include a method and a mass flow controller configured to perform, in-situ, by the mass flow controller, a rate of decay measurement during on-line operation of the tool to identify valve leak issues and/or for performing a flow measurement.

20 Claims, 4 Drawing Sheets