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(54) **SENSOR INTERFACE DEVICE PROVIDING DIGITAL PROCESSING OF INTRAVASCULAR FLOW AND PRESSURE DATA**

(57) Embodiments of the present disclosure are configured to assess the severity of a blockage in a vessel and, in particular, a stenosis in a blood vessel. In some particular embodiments, the devices, systems, and methods of the present disclosure are configured to assess the severity of a stenosis in the coronary arteries by monitoring fluid flow. In some embodiments, the devices, systems, and methods of the present disclosure

receive analog sensor data that includes fluid flow data and digitizes the analog sensor data according to a quadrature sampling rate. A weighted accumulator performs a baseband conversion on the digitized sensor data and may perform other signal processing steps. The processed data is then provided for use in any one of a number of diagnostic assessments.

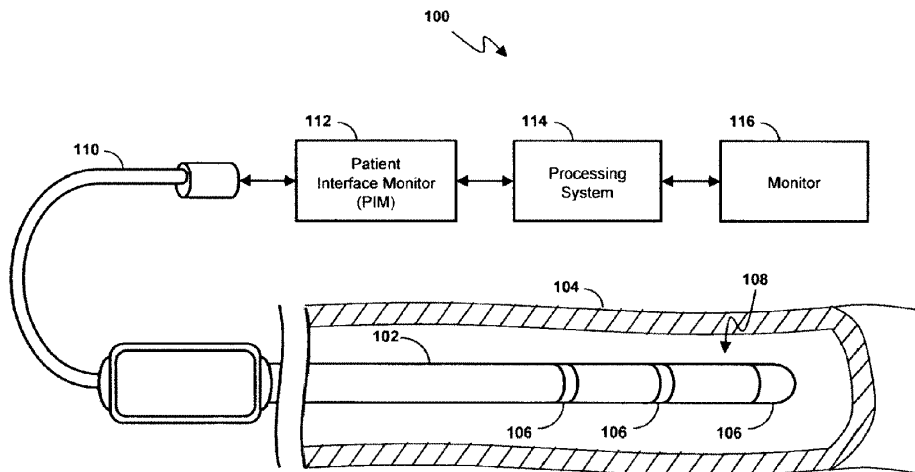


Fig. 1

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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

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Place of search The Hague	Date of completion of the search 10 June 2024	Examiner Lommel, André
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CATEGORY OF CITED DOCUMENTS
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ANNEX TO THE EUROPEAN SEARCH REPORT
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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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10 - 06 - 2024

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