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**Bennett et al.**

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(54) **PORTABLE FLUID SENSING DEVICE AND METHOD**

(58) **Field of Classification Search** ..... 702/45,  
702/50, 100; 73/861.19, 861.24  
See application file for complete search history.

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**G01F 25/00** (2006.01)

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(52) **U.S. Cl.** ..... **702/100; 702/50**

(57) **ABSTRACT**

Fluid monitoring methods, systems and apparatus are disclosed, including a portable subassembly that is in electrical communication with a sensor in contact with the fluid being monitored. Preferred embodiments for the sensor include one or more flexural resonator sensing elements. In preferred embodiments the sensor subassembly is ported to multiple fluidic systems to monitor the fluid properties in an efficient manner.

**8 Claims, 23 Drawing Sheets**

