Application

**Market:** Medical Device  
**Product Line:** Bubble Sensor

### Automatic IV Line, Shutoff Bubble Sensor

**Application:** Intravenous lines are used to administer drugs and nutrients to a patient during care. During this process, air can be introduced to the line, which can cause adverse health effects. As such, constant monitoring of IV lines is critical for ensuring patient safety. Devices exist that can automatically detect and redirect air bubbles into a waste stream before they reach the patient so as not to interrupt a procedure or flow to a patient.

**Customer Challenge:** Sensor needs be able to detect air bubbles of unsafe sizes. Sensor also needs to be able to ignore “nuisance” bubbles, in order to prevent unnecessary waste.

**Strain Measurement Devices Solution:** To address this problem, Strain Measurement Devices has designed a custom bubble sensor. This bubble sensor is based in SMD’s proprietary ultrasonic detection technology. The sensor utilizes a “v-shaped” tube slot to allow for east and automated tube installation. Each sensor is custom calibrated with customer selected tubing to selectively detect unsafe bubbles and ignore nuisance bubbles, based on customer specifications.

**Related Products:**
- A130 Bubble Sensor
- A240 Bubble Sensor
- Custom Bubble Sensor
- Integrated Bubble/Occlusion Sensor

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