



PRODUCTS
**MEASUREMENT &
DETECTION**



MBD MICROFLUIDIC BUBBLE DETECTOR

ELVEFLOW.COM/MICROFLUIDIC-FLOW-CONTROL-PRODUCTS/MICROFLUIDIC-FLOW-CONTROL-MODULE/MICROFLUIDIC-LIQUID-SENSOR/



CHECK IF LIQUID IS PRESENT IN CLEAR TUBING



The sensor is able to **detect the presence of fluids inside clear tubing, trigger a signal to another instrument** and act accordingly - such as stop, wait a certain amount of time, allow enough flow to clear the tubing, or reset the sensor.

✓ **BUBBLE MONITORING**

✓ **LIQUID INTERFACES DETECTION**

UNIQUE PERFORMANCES

- > Cost-effective compared to camera
- > Based on true/false logic
- > Reliable non invasive technique
- > Prevents damage in cells with bubble bursts
- > The microfluidic bubble detector comes in two different casings suited to the use with 1/16" or 1/4" outside diameter tubes

APPLICATIONS

- > Bubble detection
- > Liquid level sensing
- > Blood processing equipment
- > Patient connected medical devices
- > Perform bilateral recirculation based on air detection

DETECTION MODULE SIZE (length x width x height): 68 x 29 x 33 mm **AMPLIFICATION MODULE SIZE:** 69 x 59 x 22 mm

HOW IT WORKS

A light beam is emitted by a LED at known power. This light beam goes through the capillary and the fluid passing through. It is then collected by an NPN silicon phototransistor. This phototransistor converts the light power into an electrical power. When a fluid changes, the optical index and the light absorption coefficient change accordingly. It induces a change in the electrical power and allows to detect changes in the fluid.

WAVELENGTH = 890 nm

