



Key Features

- Proven Ultrasonic Technology
- Solid-state, No Moving Parts
- Lightweight, Compact Design
- Bi-directional gas flow from zero to 1000ml/min



Gill Sensor's MicroFlow uses proven ultrasonic techniques to measure gas flow accurately and reliably with no moving parts. The MicroFlow demonstrates for the first time in a single unit, the measurement of bi-directional gas flow from zero to 1000ML per min with a resolution of 0.01ML and a turn-down ratio of >1000:1. The unit is capable of operating at gas pressure up to 7.0 BAR gauge.

Different flow rate ranges are available with simple customisation to the flow tube and transducer assemblies.

Together with its high sample rate and accuracy, the MicroFlow is able to deliver detailed information of very small changes in gas flow.

The MicroFlow uses ultrasound to measure the velocity of gas travelling through the device. Pulses of ultrasound are transmitted upstream and downstream in the gas flow between the two transducers. Using the principle of time of flight, an accurate reading of the gas flow velocity can be determined. An onboard pressure transducer is provided to measure and compensate for gas pressure variations.

Flow Measurement

Flow Range	0.01 to 1,000 ml/min
Sample Rate	100 per second
Operating Pressure	0 to 7.0 bar gauge

Analogue Output

Output Format	RS232
Accuracy	±3% or ±2ml/min
Average offset	±0.5ml/min

Electrical

Supply Voltage	+12VDC
Supply Current	<150mA

Mechanical

Size	145mm x 135mm x 30mm (L x W xH)
Weight	200g

Environmental

Operational Temperature	-10°C to +60°C
Storage Temperature	-20°C to +70°C
Humidity	95% RH (no condensation)

Notes

This product is a prototype and is not available for general sale. Please contact us if you have a requirement for a similar product development.

Precision Gas Flow Measurement

Typical Applications

Medical

- Ventilation
- Gas flow control

Industrial

- Gas flow control
- Filter testing
- Gas flow control
- Gas usage monitoring

Typical gas flow from a Peristaltic pump



Gill Sensors
Saltmarsh Park
67 Gosport Street
Lymington
Hampshire
SO41 9EG, UK

T: +44 (0) 1590 613 400
F: +44 (0) 1590 613 401
E: info@gillsensors.co.uk

www.gillsensors.co.uk

