

Ultrasonic Mass Airflow sensor



Key Features

- Proven Ultrasonic Technology
- Solid State - No Moving Parts
- Lightweight
- Compact Design
- Bi-directional Flow Rate to 600kg/hr



PRELIMINARY DEVELOPMENT
Specifications are subject to change

The Mass Airflow Sensor uses proven ultrasonic techniques to measure gas flow accurately and reliably with no moving parts.

The Mass Airflow sensor demonstrates the high-speed measurement of bi-directional mass air flow from up to 600KG / hour with a resolution of 0.001KG / hour and a turn-down ratio of >1000:1.

Different mass flow rate ranges are available with simple customisation to the flow tube geometry.

Together with its high sample rate, accuracy and diagnostic capability, this sensor is able to deliver detailed information on very small changes in gas flow.

The Mass Airflow sensor 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. The integral pressure and temperature transducers convert this flow into a true mass flow measurement.

Electrical

Mass Flow Range	0 to 600 kg/hour
Flow Range	0 to 10,000 l/min
Sample Rate	200 per second
Operating Temperature	-10°C to +125°C
Operating Pressure	860 to 1060 hPa
Accuracy	1% @20°C

Analogue Outputs

Mass Flow	0.2 to 4.8 VDC
Direction	0 or 5 V
Status	0 or 5 V

Electronics

Serial Output	RS232
Supply Voltage	0 to 16 V
Supply Current	150mA max

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.



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