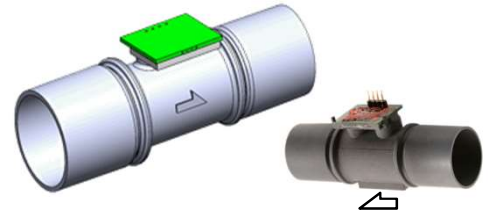


Digital output flow sensor

MMS501

Product image for illustration purposes only.



Outline

This product is a flow sensor using MEMS technology. The product mounts a $\Delta\Sigma$ AD converter with a resolution of 24 bits and outputs a high-accuracy flow rate value as a digital value. I2C is adopted for the interface and communication is performed with a microcomputer.

Applications

Medical application, combustion application
Devices using flow rate

Features

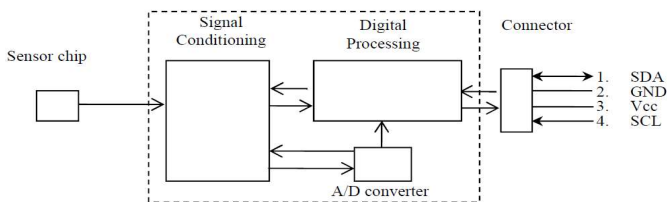
- ① High-accuracy measurement
- ② Mass flow rate measurement with thermal flow MEMS Chip.
- ③ $\Delta\Sigma$ AD converter with a resolution of 24 bits and outputs a high-accuracy flow rate value as a digital value.

Specification (Draft)

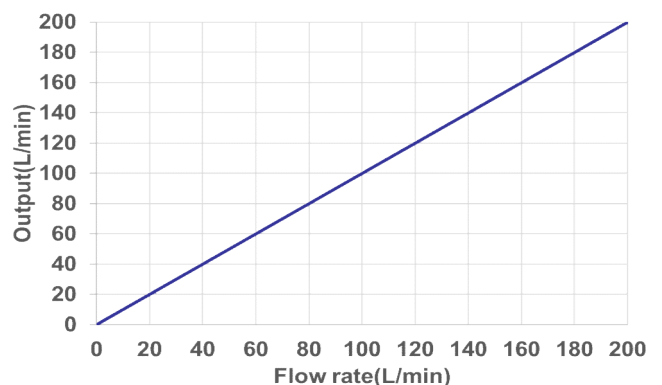
ITEM	SPECIFICATION
Calibrated for	Air, Natural gas
Measurement range(*)	-250L/min to 250L/min
Accuracy	$\pm 5\%RD(10\% \text{ to } 25\%FS)$
	$\pm 3\%RD(25\% \text{ to } 100\%FS)$
Supply Voltage	2.7V ~ 3.6V
Operating Temperature	-20°C to 80°C
Resolution	24bit
Interface	I2C
Size (TBD)	73(W) × 24(D) × 38(H)mm

*Measurement range can be customized

Block Diagram



Typical Performance Characteristics



Thermal flow sensor capable of capturing air/heated gas flow rates up to 250 L/min[※]. (Digital output)

※Customizable

This product is a flow sensor using MEMS technology. The product mounts a $\Delta\Sigma$ AD converter with a resolution of 24 bits and outputs a high-accuracy flow rate value as a digital value.

◆Example of use(How sensors are used)

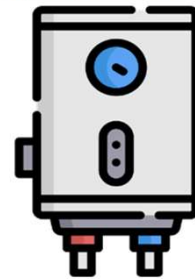
- CPAP
- Breath detection



- Compact fuel cell system
- Flow measurement of air and combustion gases



- Gas water heater
- Flow measurement of combustion gases



- Smart Gas Meter
- Flow measurement of combustion gases



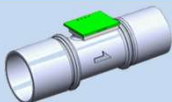
- Air conditioning management
- Air visualization



- Spirometer
- Lung capacity check



◆Development Schedule

MMS501	TS	ES	MP
	Feb.'23	May.'23	Oct.'23

* Please understand that the schedule is subject to change without notice.

* Other specifications Please contact us individually for more information.