

Digital output flow sensor

# MMS501

### 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.

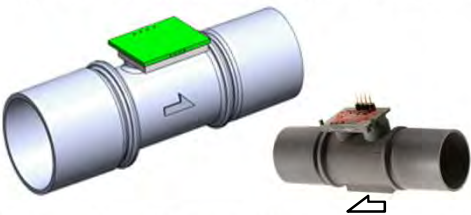
### Applications

Medical application,combution 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.

Product image for illustration purposes only.

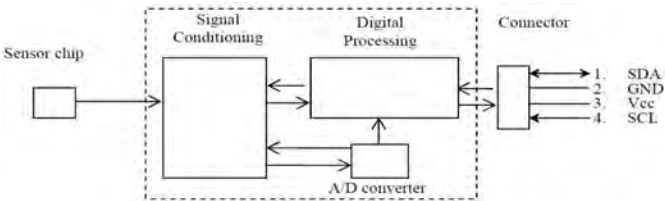


### Specification (Draft)

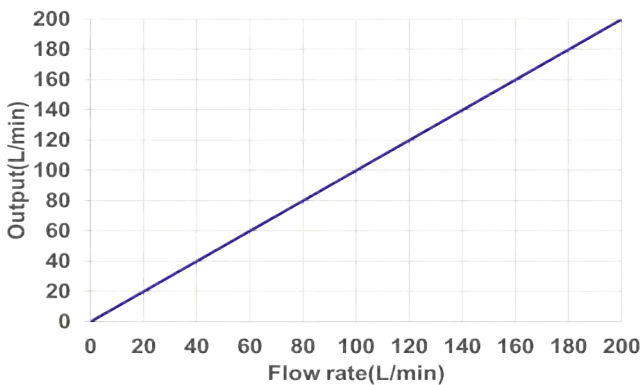
ITEM	SPECIFICATION
Calibrated for	Air,Natural gas
Measurement range(*)	-250L/min to 250L/min
Accuracy	±5%RD(10% to 25%FS)
	±3%RD(25% to 100%FS)
Supply Voltage	2.7V ~ 3.6V
Operating Temperature	-20℃ to 80℃
Resolution	24bit
Interface	I2C
Size (TBD)	73(W) ×24(D) ×38(H)mm

\*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<sup>※</sup>. (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)

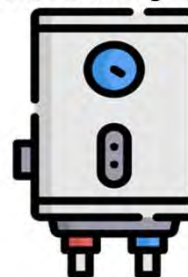
- CPAP
- Breath detection



- 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



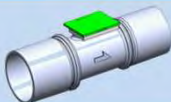
- Air conditioning management
- Air visualization



- 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.