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Product image for illustration purposes only.

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

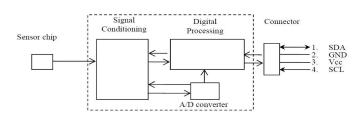
- 1 High-accuracy measurement
- ② Mass flow rate measurement with thermal flow MEMS Chip.
- ③ ΔΣ AD converter with a resolution of 24 bits and outputs a high-accuracy flow rate value as a digital value.

Specification (Draft)

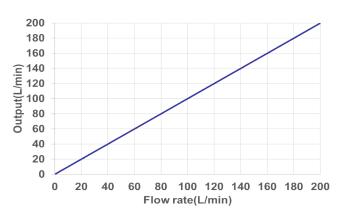
ITEM	SPECIFICATION	
Calibrated for	Air,Natural gas	
Measurement range(*)	^r) -250L/min to 250L/min	
Accuracy	±5%RD(10% to 25%FS)	
	±3%RD(25% to 100%FS)	
Supply Voltage	$2.7 ext{V} \sim 3.6 ext{V}$	
Operating Temperature	-20℃ to 80℃	
Resolution	24bit	
Interface	I2C	
Size(TBD)	73(W) ×24(D) ×38(H)mm	

*Measurement range can be customized

Block Diagram



Typical Performance Characteristics



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minebeamitsumi semiconductor

https://product.minebeamitsumi.com/en/product/category/sensor/ics/

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Thermal flow sensor capable of capturing air/heated gas flow rates up to 250 L/min $^{\text{*}}$.(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



Smart Gas Meter
Flow measurement of combustion gases



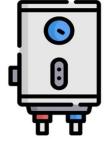
Compact fuel cell system
Flow measurement of air and combustion gases



Air conditioning managementAir visualization



Gas water heater
Flow measurement of combustion gases



SpirometerLung 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.