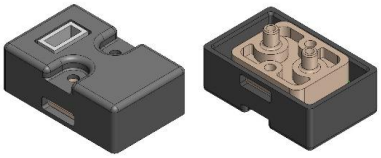
PRELIMINARY

Digital Output Flow Sensor

Product image for illustration purposes only.

MMS551 P003S1



Outline

This product is a digital output flow sensor using MEMS technology. This sensor can measure minute flow rates using the thermal flow method. Equipped with a 24 bits resolution ⊿ΣAD converter, it outputs highly accurate measurement values as digital values. The interface uses I2C to communicate with the microcontroller.

Applications

CPAP, Ventilators, HVAC/VAV

Devices using air flow

Features

① Adopts thermal flow type MEMS sensor chip to realize compact and high-precision measurement
- Applicable medium: (Air)
- Size: 28.0 mm(W) x 18.0 mm(D) x 13.6 mm(H) (TBD)
- Accuracy: +/- 5 % R.D. (@25 ℃)

② Equipped with a dedicated ⊿ΣAD converter (24 bit resolution)
- Faster response speed: < 5 msec (TBD)
- High resolution digital output

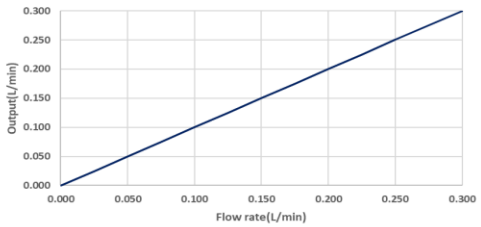
Basic performance (Draft)

ITEM	PERFORMANCE
Calibrated for	Air
Measurement range	Flow rate ： 0 to 0.3 L/min
Accuracy	+/- 5 %R.D. (10%F.S≦Flow Rate≦100%F.S.)
Operating Voltage	3.0 V to 3.6 V
Response time	< 5 msec
Temperature characteristics	< 0.5 %R.D. / 10 degC
Operating Temperature	-20 degC to 80 degC
Resolution	24 bits
Interface	I2C
Size	28.0(W) x 18.0(D) x 13.6(H) mm

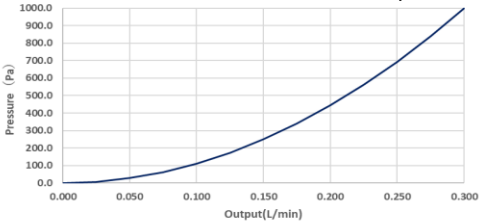
note) This model is a product under development. Therefore, basic performance are subject to change. Please contact our representative for the latest performance information.

Block Diagram

Typical Performance Characteristics



Reference: When converted to pressure



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