

OMRON

Under development

MEMS Flow sensor Type D6F-200L Target Specification

Digital output

I2C communication

High accuracy

Span accuracy $\pm 3\%RD$

Low pressure drop

Max. 300Pa at 200L/min

Fast response time

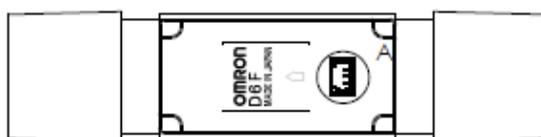
Max. 5ms



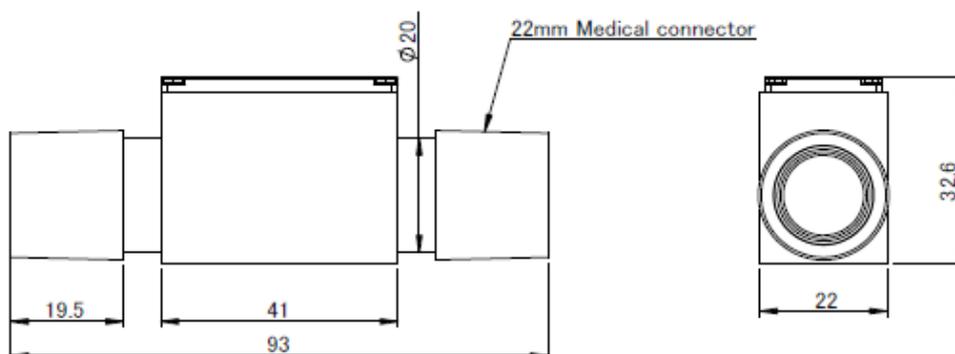
Specification

	D6F-200L Digital	Target Spec
Measurement range		0 to 200 L/min
Span accuracy		3 %R.D.
Offset accuracy		± 1 L/min
Temperature-compensation		± 0.5 %RD/ 10 degree C
Resolution		16 bits
Response time		Max. 5ms @16bit
Pressure drop		Max. 300Pa at 200L/min
Warm-up time for first reliable measurement		TBD
Interface		I2C (SPI)
Operating temperature		-10 to +60 degree C
Storage temperature		-30 to +80 degree C

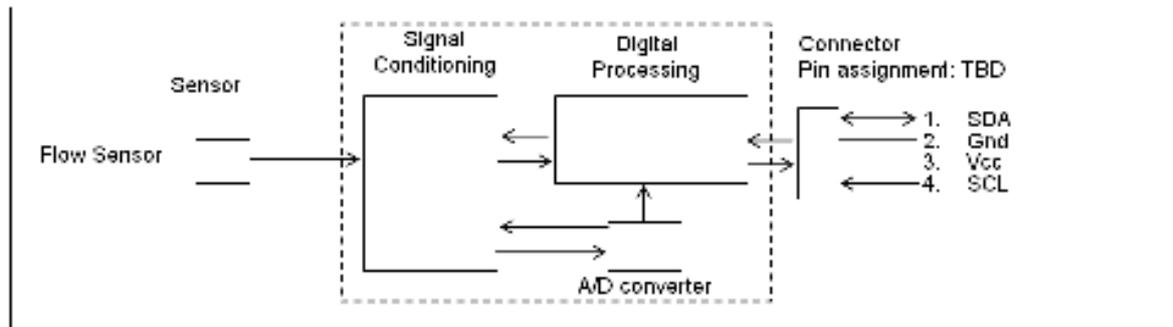
Outline



Connector (4 pin)
JST : BM04-GHS-TBT



■ Electrical connection



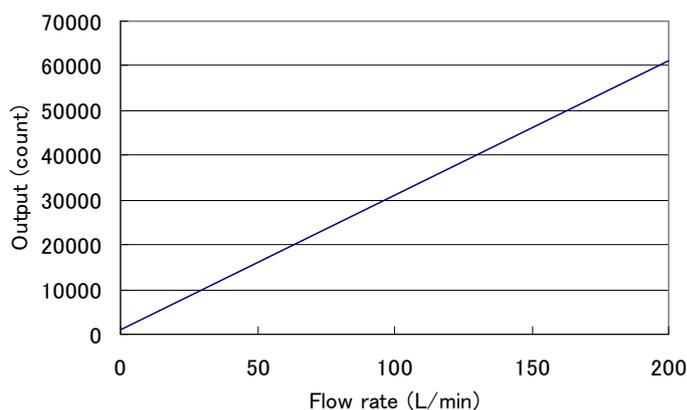
■ Communication

Method	I2C
Master/Slave	Slave / Address: HEX:0x6C BIN: 110_1100
Speed mode	Fast Mode 400kHz
Signals	
SCL	Serial Clock (output from Master device)
SDA	Data Signal (output from both Master and Slave)

■ Output characteristic

Example of output is shown in left graph.

(Typ.1024 count at 0L/min, 61024 count at 200L/min)



■ Application

- Medical
- CPAP
- Ventilator
- Anesthesia
- Oxygen concentrators