

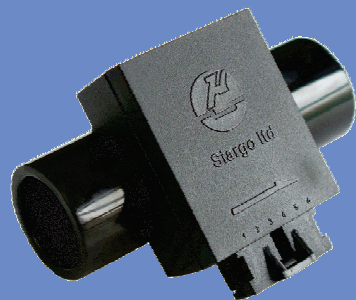


WISENSTECH

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MEMS sensor fusion for CPAP applications

Integrated MEMS mass flow and pressure sensors

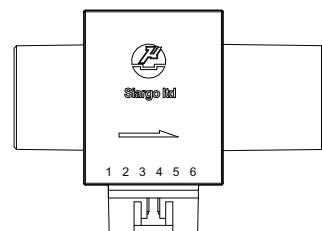


FS1022 series

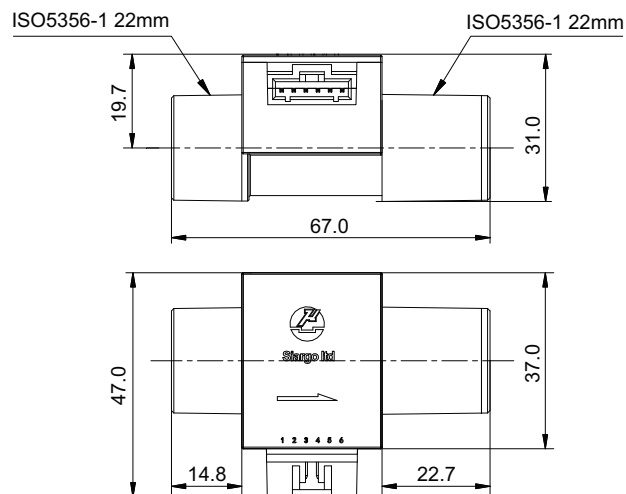
- ⦿ Designed for medical CPAP or ventilator applications
- ⦿ Direct measurement of mass flow rate and gauge pressure
- ⦿ Small dead volume with compact form factor
- ⦿ Digital and analog linear output with fast response time
- ⦿ Low power consumption

Specifications

Mass Flow Sensor		
Flow range	-200 ~ +200	SLPM
Accuracy	$\pm(2.0+0.5FS)$	%
Output*	Linear, Analog/I ² C	
Analog output offset	0.5	Vdc
Analog output span	4.0	Vdc
Response time	5.0	msec
Peak flow resistance	<1.0	cmH ₂ O/L/sec
Pressure Sensor		
Pressure type	Gauge	
Pressure range	-5 ~ +40	cmH ₂ O
Linearity	$\pm 1.0FS$	
Output*	Linear, Analog/I ² C	
Analog output offset	0.5	Vdc
Analog output span	4.0	Vdc
Response time	2.0	msec
Other parameters		
Gas	Air	
Supply voltage	5.0 \pm 1%	Vdc
Output pin	Pin header	
Compensated temperature	-5 ~ +65	°C
Compensated altitude	-400 ~ 3000 (700 ~ 1060)	m (hPa)
Storage temperature	-40 ~ +85 °C	
Pressure rating	0.1	MPa
Humidity	0 ~ 100 (no condensation)	%RH
Warming up time	<50	msec



Pin #	Definition
1	Pressure sensor analog output
2	Flow sensor analog output
3	GND, Ground
4	VCC, Power supply
5	SLK (I ² C)
6	SDA (I ² C)



Note: customizable flow range and others are available upon requests.