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Analog output pressure sensor

MMS901 (-50~+50[kPa])



Outline

Ultra-compact, low power consumption MEMS gauge pressure sensor. It is possible to output a highly accurate pressure value with little influence on temperature. (Analog output)

Applications

Device that use air

Features

- High Accuracy

 50 to +50kPa pressre range
 Offset voltage of 0 ±4.0 mV
 Span voltage of 42.0 ±5.5 mV
 (At rated pressure 50kPa, 100µADC current supply)
- ② Small size & Bottom port
- $\ensuremath{\textcircled{}}$ 3 Low Power consumption of 0.2mW
- ④ Low Temperature Influence
 - •Offset of ±3.0%FS
 - Span of ±5.0 %FS
 - (100µADC current supply)

Block Diagram



Specification (Draft)

| ITEM | SPECIFICATION | |
|-------------------------------|------------------------------------|--|
| Type of pressure | Gauge pressure | |
| Pressure medium | Air | |
| Pressure range | -50 to 50 [kPa] | |
| Ambient operating temperature | -20 ~ 100°C | |
| Ambient operating humidity | 10 to 90 %RH | |
| Drive current | 100uA DC | |
| Pressure resistant | -80 to 120 [kPa] | |
| Absolute maximum current | 200uA DC | |
| Offset voltage | 0±4.0mV(±4.8kPa) | |
| Span voltage | 42.0±5.5mV(±6.5kPa) | |
| Structure | SOP | |
| Size | 6.1(W) × 4.7(D) × 8.2(H)mm (T.B.D) | |
| Weight | 0.17g | |

Typical Performance Characteristics



(1) The pressure sensor is designed to convert a voltage by means of constant current drive.

(2) Please amplifier the output voltage of the pressure sensor by using the amplifying circuit if necessary.

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Semiconductor Business Division Strategy Engineering Department

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Ultra-compact, low-power MEMS gauge pressure sensor (analog output), -50kPa \sim +50kPa $\overset{\times}{\sim}$

%Customizable

We have developed an ultra-compact, low-power consumption gauge pressure sensor (analog output type) that can measure a pressure range of ± 50 kPa. Both analog and digital output types are available.

Example of use(How sensors are used)

- Sphygmomanometer
- •Oxygen concentrators



Coffee makers

Gas detectors



•Liposuction machine •Suction force adjustment

 CPAP
 Breath detection (exhalation and inhalation)





◆ Development Schedule

| MMS901 | TS | ES | MP |
|--------|----------|----------|----------|
| | Released | Planning | Planning |

* Please understand that the schedule is subject to change without notice.

 \ast Other specifications Please contact us individually for more information.