

Digital output gage pressure sensor

## MMR901XA



### Outline

This product is a small piezoresistive pressure sensor using MEMS technology. The product mounts a  $\Delta\Sigma$  AD converter with a resolution of 16 bits and outputs a high-accuracy pressure value as a digital value. SPI is adopted for the interface and communication is performed with a microcomputer. When an incorporated temperature sensor and EEPROM data are used, a characteristic change due to a temperature change can be compensated by the dedicated software on an external microcomputer.

### Applications

Blood pressure monitor for home appliance  
Devices using air pressure

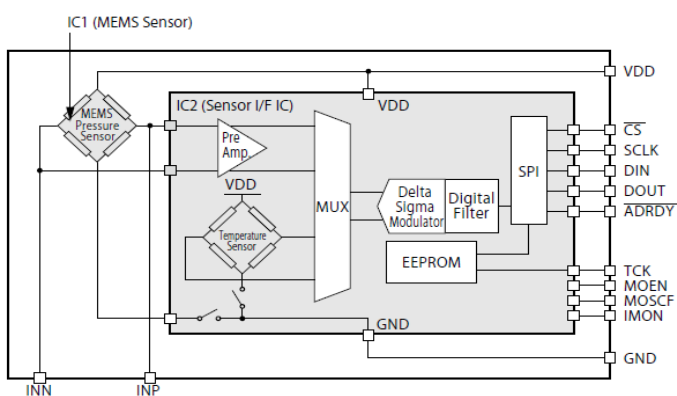
### Features

- ① Small package 7.0(W) × 7.0(D) × 7.2(H)mm
- ② A high-accuracy pressure value can be output by mounting a  $\Delta\Sigma$  AD converter.  
Resolution: 3.3 Pa (0.025 mmHg)  
Accuracy: ± 266 Pa (±2 mmHg)
- ③ Temperature compensation can be performed by using the incorporated temperature sensor and the compensation data in EEPROM.  
\* No arithmetic function is built in.

### Specification

ITEM	SPECIFICATION
Pressure Type	Gage Pressure
Pressure Medium	Air (no Condensation)
Operating Pressure Range	0 ~ 40kPa (0 ~ 300mmHg)
Operating Temperature Range	0 ~ 60°C
Supply Voltage Range	2.4 ~ 3.6V (3.0V typ.)
Conversion Time	5.12msec
Current Consumption	690uA
Current Consumption at Shutdown	2uA Max
Pressure accuracy	±266Pa(±2.0mmHg)
Pressure effective resolution	3.3Pa(0.025mmHg)
Interface	SPI
Size	7.0(W) × 7.0(D) × 7.2(H)mm

### Block Diagram



### Typical Performance Characteristics

