

Pressure sensor With I²C Digital Output

- Piezo-resistive silicon micro-machined sensor
- Gauge type pressure sensor
- I²C interface
- Pressure range : -250mbar to +250mbar
- Resolution : 0.25mbar x (0~2000count)
- Temperature Compensation : 0 ~ 50°C
- Operating voltage : 3.0V or 5.0V
- 6PIN package
- RoHS compliant and Halogen-free

The PS-10B is with the pressure sensor which measures gauge pressures. It consists of a silicon micro-machined sensing element chip and a signal conditioning ASIC. The pressure sensor element and the ASIC are mounted inside a system-in-package and wire-bonded to appropriate contacts. The main sensor provides the digital output data with the format of I²C interface. It can achieve ESD robustness, fast response time, high accuracy and linearity as well as long-term stability. All measurement data is fully calibrated and temperature compensated. In addition, it allows for easy system integration.



Specifications

Main Sensor Type	SOP 6PIN
Pressure range	-250mbar to +250mbar
Supply Voltage	3.0V or 5.0V
Operating Current	2.0mA
Output Range	5 to 95% of F.S Can be adjusted to application.
Output Signal	I ² C
Output ripple	0.2% of F.S
Water protection	IP-65
Wetted MAT' L	PPS
Radiated immunity	10V/m 80~1000MHZ
ESD withstand	2KV

Performance & Environmental

Temperature effect	±0.01% of F.S/°C
Accuracy	±1.0% of F.S(25°C)
Total error band	±1.0% of F.S(25°C) ±1.5% of F.S(0 to 50°C)
Linearity	±0.5% of F.S(0 to 50°C)
Cycle life	500,000 / cycle
Operating Temp	-20 to 80°C
Proof pressure Burst pressure	2 x Full Range 3 x Full Range
Storage Temp	-30 to 100°C
Humidity Limits	0 to 95% RH