

Pressure Sensor-Package With I²C Digital Output

- Supply Voltage : 3.0V
- I²C Interface
- 24 Bit Σ - Δ ADC
- Pressure range : -1,000Pa to +1,000Pa
- Piezo-resistive silicon micro-machined sensor
- RoHS compliant and Halogen-free Package
- Approximately 200Hz data output rate

The PS-33D is 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 PS-33D 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.



PS-33D with I²C Output

☐ Recommended Operating Conditions

Specifications	
Pressure range	-1,000Pa to +1,000Pa
Supply Voltage	3VDC
Operating mode current	~0.6mA (typical)
Sleep Mode current	20nA (typical)
Output	I ² C interface
ADC resolution	24 Bit
ESD withstand	+/- 2KV
Humidity Limits	0 to 95% RH
I ² C clock frequency	400KHz

Performance & Environmental	
Operating Temp	-20 to 80°C
Accuracy	±0.1% of F.S
Total error band	±0.5% of F.S(0 to 50°C) ±1.0% of F.S(-20 to 80°C)
Cycle life	1,000,000 / cycle
Proof pressure	x 2.0
Burst pressure	x 3.0
Water protection	IP-60
External Material	PBT