

Compact Pressure Sensor IC

BM1383GLV



Provides class-leading accuracy over a wide temperature range

Product Outline

The BM1383GLV piezoresistive pressure sensor makes it easy to obtain high accuracy pressure information by performing temperature correction based on proprietary algorithms via an internal IC. Detects differences in height (altitude) through pressure changes in wearable devices, activity monitors, and advanced detection for indoor navigation in smartphones and tablets.

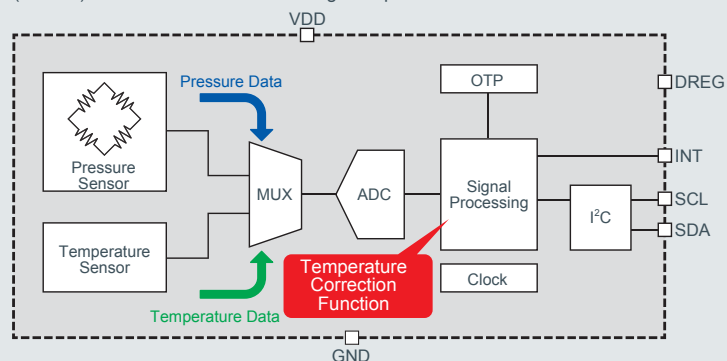
- Built-in temperature correction function ensures stable measurement at both low and high temperatures

Key Specifications

- Pressure Range: 300hPa to 1100hPa
- Absolute Pressure Accuracy: $\pm 1\text{hPa}$ (Typ.)
- Relative Pressure Accuracy: $\pm 0.12\text{hPa}$ (Typ.)
- Average Current (1Hz Data Rate): $5\mu\text{A}$ (Typ.)
- Operating Temperature Range: -40 to $+85^\circ\text{C}$
- Supply Voltage Range: 1.71 to 3.6V

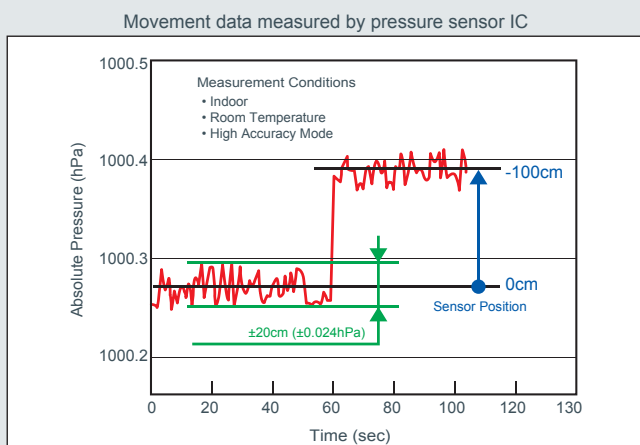
Block Diagram

Internal temperature correction function provides high accuracy relative pressure (altitude) characteristics from low to high temperatures



- $\pm 20\text{cm}$ possible via high accuracy mode

Pressure Measurement Results Example



- Applications

- Advanced detection for indoor navigation (i.e. in smartphones and tablets)
- High/low (height) detection in wearable devices, activity meters, and the like



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