

HV Series Product Brief

Differential Pressure Sensor for HVAC Applications

Key Features

- High performance low pressure sensor
- Highly integrated sensor, ADC and DSP
- Multi-Range (Up to 8 calibrated ranges/device)
- Pressure ranges 0.1 to 60 inH₂O (25 to 15 kPa)
- 16 bit resolution (each range)
- Integrated 50/60Hz notch filter
- Selectable bandwidth filter from 0.1Hz to 10Hz
- Output Data Rate from 0.5Hz to 111Hz
- Total Error Band less than 0.15% FSS
- Accuracy better than 0.10% Selected Range
- Long Term Stability +/- 0.10% FSS/Yr
- Exceptional Zero Stability
- Temperature Compensated 0°C to 50°C
- Standard I²C and SPI interface

Product Summary

Superior's HV Series low pressure sensor module family employs *NimbleSense™* a proprietary architecture to create the industry's widest dynamic range. This wider dynamic range is ideally suited to offer multiple pressure ranges in a single package thus minimizing the number of sensor variants required to support the demanding functional requirements of the HVAC market.

Industry leading performance - The HV Series measures dry air and non-aggressive gas pressure with very high accuracy and a stable zero point. Non-linearity is also industry leading which is typically better than 0.10% FSS. Power on time is also a consideration and with



warm-up in the range of a few minutes, the HV Series is an excellent choice for time critical installation applications.

The HV Series family provides a new level of integration combining an advanced piezoresistive sensing element with integrated amplification, ADC, DSP and interface which greatly simplifies customer integration efforts. The incorporation of advanced digital processing enables new functionality thus simplifying system development, added manufacturing ease and increased reliability.

Constructed with a high reliability plastic enclosure, the HV Series family provides the ideal combination of very high performance and reliability while ensuring customers have a high volume cost effective solution optimized for their HVAC requirements.

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