

MS45xx Series

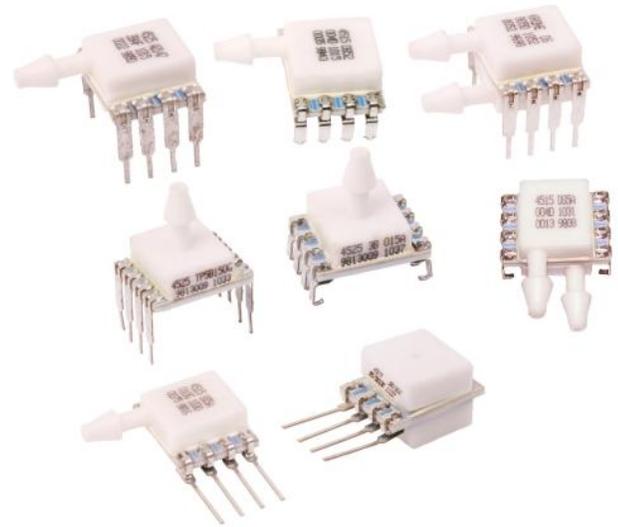
Product Definition

PC Board Mountable Pressure Sensor
 Combination Temperature and Pressure
 Analog Output and I²C or SPI Digital Output
 Gage, Differential, Absolute, Compound, Vacuum
 3.3 or 5.0Vdc Supply Voltage

MS45xx Series

The MS45xx series is a small, ceramic based, PCB mounted pressure transducer using Measurement Specialties' proprietary UltraStable™ technology (MS4525/MS4525DO) and the latest CMOS sensor conditioning circuitry. This series contains both analog output (MS4515/MS4525) and digital output (MS4515DO/MS4525DO) where the digital output versions feature either I²C or SPI interface and provide 14-bit pressure as well as 11-bit temperature sensing.

It is fully calibrated and temperature compensated with a total error band (TEB) of less than 1.0% over the compensated range. The sensor operates from a single supply of either 3.3 or 5.0Vdc and requires a single external component for proper operation. The rugged ceramic transducer is available in side port, top port, and manifold mount and can measure pressure up to 30inH₂O (MS4515/MS4515DO) and 150psi (MS4525/MS4525DO). The 1/8" barbed pressure ports mate securely with 3/32" ID tubing.



FEATURES

- PCB Mountable
- High Level Analog Output and I²C or SPI Digital Output
- Barbed Pressure Ports
- inH₂O and PSI Pressure Ranges

APPLICATIONS

- Blocked Filter Detection
- Altitude and Airspeed Measurements
- Medical Instruments
- Fire Suppression System
- Panel Meter
- Factory Automation
- Leak Detection
- Vacuum System Process Controls

MS45xx Series

Product Definition

Model	Pressure Ranges	Type (G = Gage A = Absolute D = Differential C = Compound, V = Vacuum)	Output (% Vs)	Supply Voltage (Vs)	Compensated Temperature	Unique Feature
MS4515	0 – 2, 4, 5, 10, 20, 30 inH ₂ O	G, D	10% to 90% 5% to 95%	3.3, 5.0Vdc	0°C to 60°C	inH ₂ O Range Analog Output Temperature & Pressure
MS4515DO	0 – 2, 4, 5, 10, 20, 30 inH ₂ O	G, D	14-bit Digital Word SPI or I ² C	3.3, 5.0Vdc	0°C to 60°C	inH ₂ O Range Digital Output Temperature & Pressure
MS4515HRD	0 – 2, 4, 5, 10, 20, 30 inH ₂ O	G, D	24-bit Digital Word SPI or I ² C	1.8, 3.6Vdc	0°C to 60°C	High Resolution inH ₂ O Range Digital Output Temperate & Pressure
MS4525	0 - 1, 2, 5, 15, 30, 50, 100, 150psi	G, A, D, C, V	10% to 90% 5% to 95%	3.3, 5.0Vdc	-10°C to +85°C	Low Pressure Range Analog Output UltraStable™
MS4525DO	0 - 1, 2, 5, 15, 30, 50, 100, 150psi	G, A, D, C, V	14-bit Digital Word SPI or I ² C	3.3, 5.0Vdc	-10°C to +85°C	Low Pressure Range Digital Output UltraStable™ Temperature & Pressure
MS4525HRD	0 - 1, 2, 5, 15, 30, 50, 100, 150psi	G, A, D	24-bit Digital Word SPI or I ² C	1.8, 3.6Vdc	-10°C to +85°C	High Resolution Low Pressure Range Digital Output Temperate & Pressure

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