

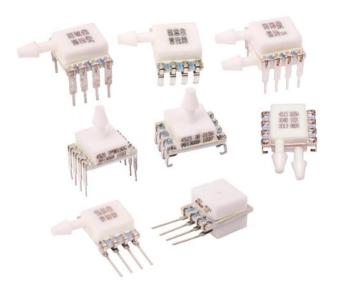
# **Product Definition**

PC Board Mountable Pressure Sensor
Combination Temperature and Pressure
Analog Output and I<sup>2</sup>C 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 30inH<sub>2</sub>O (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 I<sup>2</sup>C or SPI Digital Output
- Barbed Pressure Ports
- inH<sub>2</sub>O 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 <sub>2</sub> O	G, D	10% to 90% 5% to 95%	3.3, 5.0Vdc	0°C to 60°C	inH₂O Range Analog Output Temperature & Pressure
MS4515DO	0 – 2, 4, 5, 10, 20, 30 inH <sub>2</sub> O	G, D	14-bit Digital Word SPI or I <sup>2</sup> C	3.3, 5.0Vdc	0°C to 60°C	inH <sub>2</sub> O Range Digital Output Temperature & 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™
<u>MS4525DO</u>	0 - 1, 2, 5, 15, 30, 50, 100, 150psi	G, A, D, C, V	14-bit Digital Word SPI or I <sup>2</sup> C	3.3, 5.0Vdc	-10°C to +85°C	Low Pressure Range Digital Output UltraStable™ Temperature & Pressure

### **NORTH AMERICA**

Measurement Specialties 45738 Northport Loop West Fremont, CA 94538 Tel: 1-800-767-1888

Fax: 1-510-498-1578

Sales: pfg.cs.amer@meas-spec.com

### **EUROPE**

Measurement Specialties (Europe), Ltd. 26 Rue des Dames 78340 Les Clayes-sous-Bois, France Tel: +33 (0) 130 79 33 00

Fax: +33 (0) 134 81 03 59

Sales: pfg.cs.emea@meas-spec.com

### **ASIA**

Measurement Specialties (China), Ltd. No. 26 Langshan Road Shenzhen High-Tech Park (North) Nanshan District, Shenzhen 518057 China

Tel: +86 755 3330 5088 Fax: +86 755 3330 5099

Sales: pfg.cs.asia@meas-spec.com

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.