



BOARD MOUNT PRESSURE SENSORS

TE Connectivity (TE) offers a full line of printed circuit board mount pressure sensors for a wide range of applications and industries where digital or analog output, compact size, lightweight, and cost-effective solutions are needed. Choose the best solution for your application from our broad selection of digital and analog PCB mountable pressure sensors, available in both through-hole and surface mount configurations. Engineered with leading edge MEMS technology and our proven experience in design and manufacturing capabilities—TE pressure sensors provide advanced performance, durability, and long-term stability. Use TE's innovative board mount pressure sensors to enhance your product's performance. Whatever your industry challenge, TE has the solution.

- Digital Output
- Analog Output
- Small Size
- Light Weight
- PCB Mountable
- Through-Hole or Surface Mount

DESIGN QUESTIONS

- What type of pressure reading is needed for the application?
- What pressure accuracy is needed?
- What is the output needed (I²C, analog)?
- What are your environmental conditions, operating temperature and humidity range?
- Are there some environmental constraints such as chemicals, pollution, water immersion; repeated condensation events?

STANDARD SIZE BOARD MOUNT PRESSURE SENSORS

Premium Line Board Mount Pressure Sensors										
	Product Family	Package	Supply Voltage	Pressure Range	Calibrated Temperature [°C]	Output	TEB [%FS]	Size[mm]	Feature	Typical Application
	HCLA	THT / SMT	5V / 3.3 V	2.5 - 75mbar	-25 - 85°C	Analog, I ² C, SPI	N/A	17 x 13	Dual Die Sensors	Air Flow Measurement, HVACR, Medical Devices
	HCE	THT / SMT	5V / 3.3 V	10mbar - 5bar	0 - 85°C	Analog, SPI	0.5%	17 x 13	General Purpose Small Port Sensor	Industrial, Medical
	HDI	THT / SMT	5V / 3.3 V	10mbar - 5bar	0 - 85°C	Analog, I ² C, SPI	0.5%	20 x 12	General Purpose Large Port Sensor	Industrial, Medical
	HM	THT	5V / 3.3 V	2.5mbar - 10bar	-20 - 85°C	Analog, I ² C, SPI	0.75%	14 x 10	Increased Media Compatibility	Industrial, Medical
	MS4515DO	THT / SMT	5V / 3.3 V	2 - 30 inH ₂ O	0 - 60°C	I ² C, SPI	1%	13 x 10	Gel Coating, Low Power	Blocked Filter Detection, Medical Devices
	MS4525DO	THT / SMT	5V / 3.3 V	1 - 150 Psi	-10 - 85°C	I ² C, SPI	1%	13 x 10	Gel Coating, Low Power	Factory Automation, Medical Devices
	MS4515	THT / SMT	5V / 3.3 V	2 - 30 inH ₂ O	0 - 60°C	Analog	1%	13 x 10	Gel Coating, Low Power	Blocked Filter Detection, Medical Devices
	MS4525	THT / SMT	5V / 3.3 V	1 - 150 Psi	-10 - 85°C	Analog	1%	13 x 10	Gel Coating, Low Power	Factory Automation, Medical Devices

DIGITAL OUTPUT BOARD MOUNT PRESSURE SENSORS

24-Bit, Ultra-Low Power, Pressure and Temperature Sensors										
	Product	Package	Supply Voltage	Pressure Range	Operating Temperature [°C]	Resolution [mbar]	Accuracy [mbar]	Digital Interface Protocol	Size [mm]	Typical Applications
	Absolute									
	MS5607-02BA	SMD	1.8 - 3.6 V	10 to 2000 mbar	-40 to +85°C	0.024	±1.5	I ² C or SPI pin selectable	5 x 3 x 1	Mobile Altimeter/Barometer Systems, Bike Computers, Variometers, Dataloggers, Mobile Phones
	MS5611-01BA	SMD	1.8 - 3.6 V	10 to 1200 mbar	-40 to +85°C	0.012	±1.5	I ² C or SPI pin selectable	5 x 3 x 1	Mobile Altimeter/Barometer Systems, Bike Computers, Variometers, Medical Alarms, Indoor Navigation
	MS5637x	SMD	1.5 - 3.6 V	2, 30 bar	-40 to +85°C, -20 to +85°C	0.016, 0.27	±4.0, ±1.5	I ² C	3 x 3 x 0.9	Smart Phones, Tablets, Industrial Equipment, Tire Pressure Monitoring Systems (TPMS)
	Absolute									
	MS5849-30BA		1.5 - 3.6 V	0.3Bar to 30 Bar	-40 to +110°C	0.14, 0.19, 0.27, 0.38, 0.55, 0.79, 1.31	+/- 175mbar	I ² C and SPI	3.3 x 3.3 x 2.7	Drones, Fitness Trackers, Bike Computers Mobile Altimeter/Barometer Systems, Wearables, TPMS
	MS5803x	SMD	1.8 - 3.6 V	1, 2, 5, 7, 14, 30 bar	-40 to +85°C	0.012, 0.024, 0.036, 0.04, 0.2, 0.5	±2.5, ±120, ±50, -200 to +100, ±400	I ² C or SPI pin selectable	6.2 x 6.4 x 2.9	Multifunction Watches, Bike Computers, Diving Watches
	MS5805-02BA	SMD	1.8 - 3.6 V	2 bar	-40 to +85°C	0.02	±4.0	I ² C	4.5 x 4.5 x 3.5	Mobile Altimeter/Barometer Systems, Multifunction Watches, Bike Computers, Variometers, Dataloggers
	MS5837x	SMD	1.5 - 3.6 V	2, 7, 30 bar	-20 to +85°C	0.016, 0.2	±4, ±400	I ² C	3.3 x 3.3 x 2.75	Drones, Fitness Trackers, Bike Computers Mobile Altimeter/Barometer Systems, Wearables
	MS5839-02BA	SMD	1.5 - 3.6 V	2 bar	-20 to +85°C	0.016	±4	I ² C	3.3 x 3.3 x 2.75	Shallow Diving Computers, Underwater Drones, Swim Watches, Fitness Trackers, Diving Equipment
	MS5840-02BA	SMD	1.5 - 3.6 V	2 bar	-20 to +85°C	0.016	±4	I ² C	3.3 x 3.3 x 1.7	Drones, Fitness Trackers, Bike Computers Mobile Altimeter/Barometer Systems, Wearables Shallow Diving Computers, Swim Watches
	Absolute, Differential, Gauge									
	MS5525DSO	SOIC-14	1.8 - 3.6 V	1, 2, 5, 15, 30 Psi	-40 to +125°C	TEB = ±2.5% FS	±0.25% FS	I ² C or SPI pin selectable	12.5 x 7.9	Factory Automation, Altitude Measurement, Medical Devices

DIGITAL OUTPUT BOARD MOUNT PRESSURE SENSORS

14-Bit, Pressure and Temperature (11-Bit) Sensor										
	Product	Package	Supply Voltage	Pressure Range	Operating Temperature [°C]	Total Error [%FS]	Accuracy [%FS]	Digital Interface Protocol	Size [mm]	Typical Applications
	Differential, Gauge									
	MS4515DO	8-pin DIL	3.3 or 5.0 V	2, 4, 5, 10, 20, 30 in H ₂ O	-10 to +85°C	±1.0	±0.25	I ² C or SPI pin selectable	12.45 x 9.90	Blocked Filter Detection, Medical Instruments
	MS4525DO	8-pin DIL	3.3 or 5.0 V	1, 5, 15, 30, 50, 100, 150 psi	-25 to +105°C	±1.0	±0.25	I ² C or SPI pin selectable	12.45 x 9.90	Factory Automation, Medical Instruments

16-Bit, Ultra-Low Power, Pressure Sensor										
	Product	Package	Supply Voltage	Pressure Range	Operating Temperature [°C]	Resolution [mbar]	Accuracy [mbar]	Digital Interface Protocol	Size [mm]	Typical Applications
	Absolute									
	MS5534C	SMD	2.2 - 3.6	10 - 1100 mbar	-40 to +125°C	0.1	±1.5	TE Proprietary	9 x 9 x 4.3	Mobile Altimeter/Barometers, Weather Control Systems, Multifunction Watches, GPS Receivers
	MS5535x	SMD	2.2 - 3.6	14, 30 bar	-40 to +125°C	1.2, 3	-400 to 500, -160 to +200	TE Proprietary	9 x 9 x 4.3	Diving Computers, Mobile Water Depth
	MS5540C	SMD	2.2 - 3.6	10 - 1100 mbar	-40 to +85°C	0.1	±1.5	TE Proprietary	6.2 x 6.4 x 2.9	Mobile Altimeter/Barometer Systems, Multifunction Watches, GPS Receivers, Weather Control Systems
	MS5541x	SMD	2.2 - 3.6	14, 30 bar	-40 to +85°C	1.2, 3	+300	TE Proprietary	6.2 x 6.4 x 2.9	Diving Computers, Multifunction Watches, Mobile Water Measurements

ANALOG OUTPUT BOARD MOUNT PRESSURE SENSORS

mV Output Pressure Sensors

	Product	Package	Supply Voltage	Pressure Range	Operating Temperature [°C]	Output/Span [mV]	Accuracy	Size [mm]	Feature	Typical Application
	Absolute - Uncompensated									
	MS52xx	SMD	5 V, 20 V	1, 12 bar	-40 to +125°C	150, 240	±0.05/0.15% FS	7.6 x 7.6 x 4.3	Voltage Excitation	Altimeters, Barometers, Engine Controls, Tire Pressure
	MS52xx C&T	SMD	5 V, 20 V	1, 4, 7 bar	-40 to +125°C	240, 225, 392	±0.15% FS	7.6 x 7.6 x 4.3	Voltage Excitation	Altimeters, Barometers, Engine Controls
	MS54xx	SMD	5 V, 20 V	1, 7, 12 bar	-40 to +125°C	150, 240, 310, 392	±0.05% or ±0.2%	6.2 x 6.4 x 2.9	Voltage Excitation	Brake Systems, Engine Management, Swim Watches, Dive Computers
	Gauge - Uncompensated									
	MS5201-XD	SMD	5 V, 20 V	1 bar	-40 to +125°C	150, 240	±0.05/0.15% FS	7.6 x 7.6 x 8.5	Voltage Excitation	Medical Devices, Pneumatic Controls

Amplified Ratiometric Analog Output Pressure Sensors

	Product	Package	Supply Voltage	Pressure Range	Operating Temperature [°C]	Output/Span [Vdc]	Accuracy	Size [mm]	Feature	Typical Application
	Differential, Gauge									
	MS4515	8 pin DIL	3.3, 5 V	2, 4, 5, 10, 20, 30 in H ₂ O	-10 to +85°C	10 - 90% 5 - 95%	±0.25% Span	12.5 x 9.9	Barbed Pressure Ports	Blocked Filter Detection, Medical Devices
	Absolute, Compound, Differential, Gauge, Vacuum									
	MS4525	8 pin DIL	3.3, 5 V	1, 2, 5, 15, 30, 50, 100, 150 psi	-25 to +105°C	10 - 90%, 5 - 95%	±0.25% Span	12.5 x 9.9	Barbed Pressure Ports	Factory Automation, Medical Devices

DIGITAL OUTPUT BOARD MOUNT PRESSURE SENSORS

24-Bit, Ultra-Low Power, Pressure, Temperature and Humidity (100% RH) Sensors										
	Product	Package	Supply Voltage	Pressure Range	Operating Temperature [°C]	Total Error [%FS]	Accuracy [%FS]	Digital Interface Protocol	Size [mm]	Typical Applications
	Absolute									
	MS8607	SMD	1.5 - 3.6 V	2 bar, 100% RH	-40 to +85°C	0.016	±4.0	I²C	5 x 3 x 1	Smart Phones, Tablets, HVACR, Weather Station, Home Appliances, Humidifiers

STANDARD SIZE BOARD MOUNT PRESSURE SENSORS

Performance Line Board Mount Pressure Sensors										
	Product Family	Package	Supply Voltage	Pressure Range	Compensated Temperature [°C]	Output	TEB [%FS]	Size[mm]	Feature	Typical Application
	SM1000	SMD	5V / 3.3 V	15 - 30 Psi	-20 - 85°C	Analog, I²C	1%	SO16, SO10	Cost Effective SMD Package for High Volume Applications and Automated Manufacturing.	Industrial, Medical
	SM4000	SMD	5V / 3.3 V	2.5 - 14.9 Psi	-20 - 85°C	Analog, I²C	1%	SO16, SO10		Industrial, Medical
	SM5000	SMD	5V / 3.3 V	0.8 - 2.49 Psi	-20 - 85°C	Analog, I²C	1%	SO16		Industrial, Medical
	SM6000	SMD	5V / 3.3 V	0.3 - 0.79 Psi	-20 - 85°C	Analog, I²C	1%	SO16		Industrial, Medical
	SM7000	SMD	5V / 3.3 V	0.07 - 0.29 Psi	-20 - 85°C	Analog, I²C	1%	SO16		Industrial, Medical
	SM9000	SMD	5V / 3.3 V	125 - 600Pa	-20 - 85°C	Analog, I²C	1% after autozero	SO16		Air Flow Measurement, HVACR, Medical Devices

STANDARD SIZE BOARD MOUNT PRESSURE SENSORS

Ultra Low Differential Pressure Sensors										
	Product Family	Package	Supply Voltage	Pressure Range	Compensated Temperature [°C]	Output	TEB [%FS]	Size[mm]	Feature	Typical Application
	LMI	SMT	5V / 3.3 V	25 - 5000Pa	0 - 70°C	Analog, I²C	typ. 0.5% @ 25°C	< 18 x 13 x 10	Thermal Flow Principle for Superior Ultra-Low Pressure Measurement. High Immunity to Dust, Particles and Humidity	Air Flow Measurement, HVACR, Medical Devices
	LDE	THT / SMT	5V / 3.3 V	25 - 500Pa	0 - 70°C	Analog, SPI	typ. 0.5% @ 25°C	< 19 x 19 x 11	Thermal Flow Principle for Superior Ultra-Low Pressure Measurement. High Immunity to Dust, Particles and Humidity	Air Flow Measurement, HVACR, Medical Devices

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12/23 Original

