

Board Level Pressure Sensors Digital Output



14-Bit, Pressure Sensors

Product	Pressure Range	Op. Temp. [°C]	Accuracy [%FS]	Total Error [%FS]	Size [mm]	Typical Application
Differential/Gage Pressure, barbed pressure ports, 3.3V or 5V, 3mA, 1.5ms conversion time, I²C+SPI interface						
MS4515DO	2, 4, 5, 10, 20, 30 in H ₂ O	-10 to +85	±0.25	±1.0	12.45 x 9.90	Blocked Filter Detection, Medical Instruments
MS4525DO	1, 5, 15, 30, 50, 100, 150psi	-25 to +105	±0.25	±1.0	12.45 x 9.90	Factory Automation, Medical Instruments



16-Bit, Ultra Low Power Pressure Sensors

Product	Pressure Range	Op. Temp. [°C]	Resolution [mbar]	Error [mbar]	Size [mm]	Typical Application
Absolute Pressure, 2.2 to 3.6V, 5uA, 35ms conversion time, SPI compatible interface						
MS5534CP	10 to 1100mbar	-40 to +125	0.1	±1.5	9 x 9	Indoor Barometer/Altimeter
MS5534CM						Outdoor Barometer/Altimeter
MS5535C	14bar	-40 to +125	1.2	±25	9 x 9	Diving Computer 130m
MS5535-30C	30bar					Diving Computer 300m
MS5540CM	10 to 1100mbar	-40 to +85	0.1	±1.5	6.2 x 6.4	Altimeter Watch, Bike Computer
MS5541CM	14bar	-40 to +85	1.2	±25	6.2 x 6.4	Diving Watch 130m
MS5561BM	1bar	-40 to +85	0.1	±1.5	4.25 x 4.75	GPS Altimeter
Differential/Gage Pressure						
MS5536-60	60mbar	-40 to +85	0.05	±1.0	10 x 13	Airspeed Measurement
MS5536-CPJU	-400 to +1000mbar	-40 to +85	0.1	±2.5	10 x 13	CPAP, Sleep Apnea, Airspeed, Blood Pressure
MS5536-CNJU	-1000 to +400mbar					



24-Bit, Ultra Low Power Pressure Sensors

Product	Pressure Range	Op. Temp. [°C]	Resolution [mbar]	Error [mbar]	Size [mm]	Typical Application
Absolute Pressure, <u>no gel</u>, 1.8 to 3.6V, 1uA, 0.5 to 8.2ms conversion time, I²C+SPI interface, internal clock						
MS5607-02BA	10 to 1200mbar	-40 to +85	0.024	±1.5	5 x 3 x 1	GPS Altimeters, Mobile Phones
MS5611-01BA	like MS5607-BP but with double resolution of 0.012mbar, for variometers					
Absolute Pressure, <u>gel-filled</u>, for outdoor products						
MS5803-01BA	10 to 1300mbar		0.012	±1.5		Altimeter Watch, Bike Computer
MS5803-02BA	10 to 2000mbar		0.024	±3.0		Altimeter Watch, Bike Computer
MS5803-05BA	5bar	-40 to +85	0.036	±4.5	6.2 x 6.4	Dual Range Altimeter/Diving
MS5803-14BA	14bar		0.15	±20		Diving Watch 130m
MS5803-30BA	30bar		0.36	±50		Diving Watch 300m
MS5805-02BA	10 to 2000mbar	-40 to +85	0.024	±3.0	4.5 x 4.5	Miniature Altimeter Watch
Absolute/Differential Pressure, high resolution						
MS4515HRD	2, 4, 5, 10, 20, 30 in H ₂ O	-10 to +85	0.001 to 0.005	±0.1 to ±0.5	12.45 x 9.90	Blocked Filter Detection, Medical Instruments
MS4525HRD	1, 5, 15, 30, 50, 100, 150psi	-25 to +105	0.005 to 0.15	±0.25	12.45 x 9.90	High Precision Medical Instruments



a= absolute pressure, g= gage pressure, d=differential pressure

Board Level Pressure Sensors

Analog Output

Amplified & Compensated Output

Product	Pressure Range	Op. Temp. [°C]	Accuracy [%FS]	Total Error [%FS]	Size [mm]	Typical Application
Differential/Gage Pressure, barbed pressure ports, 3.3V or 5V, 3mA, ratiometric analog output voltage						
MS4515	2, 4, 5, 10, 20, 30 in H ₂ O	-10 to +85	±0.25	±1.0	12.45 x 9.90	Blocked Filter Detection, Medical Instruments
MS4525	1, 5, 15, 30, 50, 100, 150psi	-25 to +105	±0.25	±1.0	12.45 x 9.90	Factory Automation, Medical Instruments



mV Output

Product	Pressure Range	Op. Temp. [°C]	Span [mV/5V]	Linearity [%FS]	Size [mm]	Feature
SMD Uncompensated						
1451	5, 15, 30, 50, 100, 250, 500psi	-40 to +125	60	±0.25	7.6 x 7.6	Tube, Narrow Hole, Wide Hole
MS52XX	1, 12bar	-40 to +125	150 240	± 0.05 ± 0.15	7.6 x 7.6	High Linearity, High Sensitivity Option
MS54XX	1, 7, 12bar	-40 to +125	150 240 392	±0.05 ±0.15 ±0.3	6.2 x 6.4	Gel-filled, Waterproof, for Sealing with O-Ring
SMD compensated						
1471	5, 15, 30, 50, 100, 250, 500psi	-40 to +125	65	±0.25	7.6 x 7.6	Tube, Narrow Hole, Wide Hole
DIL compensated						
1210	5, 10 in H ₂ O					Temperature Compensated
1220		-40 to +125	50mV & 100mV	±0.1	15.2 x 20.3	Ultra Stable (1230/40)
1230	1, 2, 5, 15, 30, 50, 100psi					Current Ex. (1210/30)
1240						Voltage Ex. (1220/40)



Silicon Die (OEM)

Product	Pressure Range	Op. Temp. [°C]	Span [mV/5V]	Linearity [%FS]	Size [mm]	Feature
MS763	400mbar		22.5	±0.15	1.30 x 2.20	Medical Die, for Catheters
MS764	400mbar		180	±0.15	1.96 x 2.10	Medical, Industrial
MS765	500mbar	-40 to +125	170	±0.05	1.96 x 2.10	Low Pressure, High Linearity
MS761	1bar		240	±0.15	1.96 x 2.10	High Sensitivity
MS767	7bar		392	±0.15	1.98 x 1.84	Very High Sensitivity
MS78xx	1, 12bar	-40 to +125	150	±0.05	2.10 x 1.96	Standard, High Linearity
MS79xx	0.5, 1, 2, 4, 7, 12, 30, 70bar	-40 to +125	150	±0.05	1.78 x 1.78 (0.5b,1b) 1.72 x 1.58	Miniature, High Linearity
MS7212-A	12bar	-40 to +125	150	±0.05	1.63 x 1.95	Harsh Media, Automotive Qualified, Routing Compatible to MS79xx
MS7228-A	28bar		150	±0.05	1.63 x 1.95	
MS7201-A2	1bar		110	±0.15	1.35 x 1.79	
MS7212-A2	12bar	-40 to +150	150	±0.05	1.18 x 1.73	Harsh Media, Automotive Qualified, for Die-to-Die Bonding, Temperature Diode Integrated
MS7218-A2	18bar		150	±0.05	1.18 x 1.73	
MS7236-A2	36bar		150	±0.05	1.18 x 1.73	
P6393	2, 5, 10, 15, 30, 50, 250, 500psi	-50 to +150	110	±0.1	3.00 x 4.00	High Sensitivity, High Reliability
P7405	1000, 3000, 5000psi	-40 to +125	150	±0.25	1.86 x 2.10	High Pressure, Open Bridge



a= absolute pressure, g= gage pressure, d=differential pressure