AVSensors

Advanced Sensor Solutions

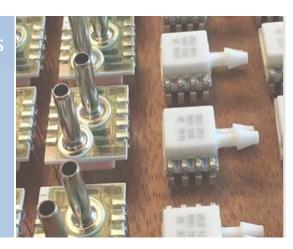
Board Mount Pressure Sensors



Board Mount pressure sensors are typically soldered onto a printed circuit board (PCB) and integrated into an electronic assembly with the addition of pneumatic plumbing to measure gage, differential and absolute pressures.

Our design construction use the highest resolution ASICs, the fastest conversion times along with safety critical diagnostic features that put them at the fore front of new designs. With legacy mV and high-level voltage outputs as well as the newest 24-bit and 16-bit digital output configurations an ideal solution is easily found.

AVSensors offers a wide range of board mounted sensor platforms with a variety of package footprints configured in top port, side port, barbed and smooth tube configurations allowing simple and low-cost interconnects with plastic tubing.



How are We Different

- AVSensors is an *engineering* company focused on the design, manufacture and sales of silicon pressure sensors.
- We want to serve our customers and understand that *customization* of our standard products are needed to drive manufacturing and products improvements at yours.
- We have US based technical professionals that are the single point of contact for all your design needs.

Package Styles TO-8, 0.600 DIP, SOIC-16 Port Configurations

Top & Side Port Barbed Ports

Pin Styles

Thru Hole, SMD, LCC and Gull Wing

Output Types

mV Output, Analog Voltage, and Digital Dual Output / Temperature & Pressure

Product Features

High Accuracy & Low Thermal Errors

Wide Pressure Range

Ultra Low Pressure down to 0.5inH20 Medium Pressure to 150 PSI

Digitally Focused 14bit and 24bit Digital Resolutions I²C and SPI Digital Protocols



Ceramic Hybrid Technology (CHT), mV Output, Temperature Compensated

	Product	Series	Pressure Types	Pressure Range	Package	Port Configuration	Package Construction	Excitation	Range [°C]	Temperature Coefficients [ppm/°C] Typ	Accuracy	Output [mV]	Size [in.]	Typical Applications
	mV Uncalibrated & Uncompensated													
		<u>CCT-4</u>		-, -,,,	SMD Surface Mount Device	Smooth Vertical Tube Wide Hole Narrow Hole 1/16 ID Hosing	e Ceramic (96% Alumina)	3.0 Vdc Constant Voltage	-40 to +125	+2800 TCR -1800 TCS	0.2% BFSL	60	0 300 v	Process Controls, Factory Automation, Supply Gas Monitoring, Valve Position
	mV Temperature Compensated													
	Product	Series	Pressure Types	Pressure Range [PSI]	Package	Port Configuration	Package Construction		Operating	Compensated Temperature [°C]	ACCURACY	Output [mV]	Size [in.]	Typical Applications
E		<u>CHT-2</u>	Absolute Gage Differential		DIL Dual In Line	Vertical Tube Smooth & Barbed 3/32 ID Hosing	Ceramic (96% Alumina)	1.5 mA Constant Current	-40 to +125	0 to +50	0.2% BFSL	90	0.600 x 0.600	Process Controls, Gas Chromatographs, Military Drones, Medical Respirators
		<u>CHT-3</u>	Absolute Gage Differential	5, 15, 30, 50, 100	DIL Dual In Line	Vertical Tube Smooth & Barbed 3/32 ID Hosing	Ceramic (96% Alumina)	1.235 Volt Reference	-40 to +125	0 to +50	0.2% BFSL	50	0.600 x 0.600	Process Controls, Gas Chromatographs, Military Drones, Medical Respirators
		<u>CTO-8</u>	Absolute Gage Differential	5, 15, 30, 50, 100, 150		Vertical Tube Can Radial O-Ring Mount	Nickel Alloy	1.5 mA Constant Current	-40 to +125	0 to +50	0.2% BFSL	90	0.450 Diameter	Factory AutomationPneumatic Controls, Pressure Scanners, Optical Surgery
		<u>CTO-7</u>		,	Transistor Outline	Vertical Tube Can Radial O-Ring Mount	Nickel Alloy	1.5 mA Constant Current	-40 to +125	0 to +50	0.2% BFSL	50	0.450 Diameter	Medical Instrumentation, Process Controls, Factory Automation
		<u>CHT-</u> <u>SM5651</u>	Gage Differential	0.15, 0.30, 0.80, 1.50	DIL Dual In Line	Vertical Tube Smooth & Barbed 3/32 ID Hosing	Ceramic (96% Alumina)	1.5 mA Constant Current	-40 to +125	0 to +60	0.50% BFSL	50	0.600 x 0.600	Medical Instrumentation, HVAC & Fan Control, Fire Suppression
		<u>CHT-</u> <u>SM5652</u>	Gage Differential	0.15, 0.30, 0.80, 1.50	DIL Dual In Line	Vertical Tube Smooth & Barbed 3/32 ID Hosing	Ceramic (96% Alumina)	10 Vdc Constant Voltage	-40 to +125	0 to +60	0.50% BFSL	25	0.600 x 0.600	Medical Instrumentation, HVAC & Fan Control, Fire Suppression



Multi Chip Technology (MCT), ASIC Compensated, Analog Voltage & Digital Outputs

High Level Analog Voltage, Calibrated, Temperature Compensated													
Product	Series	Pressure Types	Pressure Range	Package	Port Configuration	Package Construction	Excitation	Operating Range [°C]	Compensated Temperature [°C]	Error Band [%FSS]	Output [mV]	Size [in.]	Typical Applications
	MCT-4A	Absolute Gage BiDirectional	01 to 0150 PSI 05 to 0200 mBar 01 to 06 Bar 00.50 to 04 inH20	DIL / SIL Dual / Single In Line	Vertical & Horizontal Barb 1/8 ID Hosing Manifold Face Seal	Ceramic (96% Alumina)	3.3 or 5.0 VDC	-40 to +125	-10 to +85	1.0 %FSS	90% Supply 80% Supply	0.490 x 0.390	Medical Instrumentation, Process Controls, Factory Automation, Semiconductor Instrumentation
	MCT-2A	Unidirectional BiDirectional	01 PSI 04 to 0100 mBar 02 to 030 inH20	SIL Single In Line	Horizontal Barb 3/6 ID Hosing	Thermo Plastic (GF PBT)	3.3 or 5.0 VDC	-40 to +125	0 to +60	1.0 %FSS	90% Supply 80% Supply	0.78 x 0.84	Blocked Filter, Room Pressure Control, Fan Control
	<u>MCT-</u> <u>SM58A</u>	Unidirectional BiDirectional	01 to 0150 PSI 05 to 0200 mBar 01 to 06 Bar 00.50 to 04 inH20	DIL Dual In Line	Vertical Tube Smooth & Barbed 3/32 ID Hosing	Ceramic (96% Alumina)	3.3 or 5.0 VDC	-40 to +125	-10 to +85	1.0 %FSS	90% Supply 80% Supply	0.600 x 0.600	Process Controls, Factory Automation, Blocked Filter, Room Pressure Control, Fan Control
Digital Output Pressure & Temperature, Calibrated, Temperature Compensated, 1 ² C and SPI Protocols													
Product	Series	Pressure Types	Pressure Range	Package	Port Configuration	Package Construction	Excitation	Operating Range [°C]	Compensated Temperature [°C]	Error Band [%FSS]	Resolution [cts]	Size [in.]	Typical Applications
	MCT- SM4D	Absolute Gage BiDirectional	01 to 0150 PSI 05 to 0200 mBar 01 to 06 Bar 00.50 to 04 inH20	DIL / SIL Dual / Single In Line	Vertical & Horizontal Barb 1/8 ID Hosing Manifold Face Seal	Ceramic (96% Alumina)	3.3 or 5.0 VDC	-40 to +125	-10 to +85	1.0 %FSS	14-Bit Pressure 11-Bit Temperature	0.490 x 0.390	Medical Instrumentation, Process Controls, Factory Automation, Semiconductor Instrumentation
	<u>MCT-</u> <u>SM58D</u>	Absolute Gage BiDirectional	01 to 0150 PSI 05 to 0200 mBar 01 to 06 Bar 00.50 to 04 inH20	DIL Dual In Line	Vertical Tube Smooth & Barbed 3/32 ID Hosing	Ceramic (96% Alumina)	3.3 or 5.0 VDC	-40 to +125	-10 to +85	1.0 %FSS	14-Bit Pressure 11-Bit Temperature	0.600 x 0.600	Process Controls, Factory Automation, Blocked Filter, Room Pressure Control, Fan Control
U	<u>MCT-</u> <u>SM95D</u>	Absolute Gage BiDirectional	01 to 030 PSI 05 to 050 mBar 010 to 0100 cmH20 02 to 020 inH20	SOIC-16 Small Outline IC	Vertical Tube Barbed 3/32 ID Hosing	LCP (Liquid Crystal Polymer Thermoplastic) ^{3.3} or 5.0) VDC	-40 to +125	-10 to +60	1.0 %FSS	14-Bit Pressure 11-Bit Temperature	0.405 x 0.403	Medical Instrumentation, Process Controls, Factory Automation
4 E 8 E	<u>MCT-</u> <u>SM24HR</u> <u>D</u>	Absolute Gage BiDirectional	01 to 0150 PSI 05 to 0200 mBar 01 to 06 Bar 00.50 to 04 inH20	DIL / SIL Dual / Single In Line	Vertical & Horizontal Barb 1/8 ID Hosing Manifold Face Seal	Ceramic (96% Alumina)	3.3 or 5.0 VDC	-40 to +125	-10 to +85	1.0 %FSS	24-Bit Pressure 16-Bit Temperature	0.490 x 0.390	Medical Instrumentation, Process Controls, Factory Automation

Ultra Low-Pressure Wall Mounted Transmitters

	Ultra Low-Pressure Wall Mounted Transmitters for Building Automation and Room Monitoring											
Product	Series	Pressure Types	Pressure Range	Package	Port Configuration	Excitation	Operating Range [°C]	Compensated Temperature [°C]	Error Band [%FSS]	l Output [mA]	Size [in.]	Typical Applications
	$HV\Delta(-211)$	UniDirectional BiDirectional	062.5 to 0125 Pa 025 to 01000 mmH20 01 to 040 inH20	Wall Mount	Vertical Smooth Ports 3/32 ID Hosing	12-30 VDC	-25 to +70	-10 to +60	1.0 %FSS	4-20mA	2.98 x 1.93	Positive Pressure Room Monitor, Duct Pressures, Fan Pressure Measurements
	<u>MSX-</u> 7301DI	UniDirectional BiDirectional	100,500,1000, 10 Kpa	Wall Mount	Vertical Smooth Ports 3/32 ID Hosing	12-30 VDC	-45 to +70	0 to +50	0.5% of Reading + 0.5 %FSS	4-20mA	4.56 x 4.83	Positive Pressure Room Monitor, Duct Pressures, Fan Pressure Measurements

AAMI BP-22 Disposable Medical Sensors

mV Compensated & Calibrated Per AAMI-BP-22 Standard													
Product	Serie	Pressure Range	Package	Connector Types	Port Configuration	Package Construction	Excitation	Operating Range [°C]	Resistance [Ohms] Typ.	Accuracy [Typical]	Output [mV]	Typical Applications	
	<u>DPT-</u> <u>4M</u>	-50 to 300mmHg Gage	•	RJ 45 Male USB Type A RJ 45 Shroud	Male & Female Luer Fittings	Medical Grade Polycarbonate	6.0 Vdc Constant Voltage	+10 to +40	Input: 1200-3200 Output: 285-315	1mmHg	9mV Nominal	Continuous arterial or veinous blood pressure, Intracranial or Intrauterine pressure monitoring, Organ Preservation Perfusion	



Pressure Sensors

Web Portal



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