



Sensata

# PRESSURE SENSOR SELECTION GUIDE





# Low Pressure Sensors

Sensata manufactures a variety of low-pressure sensors, suitable for applications like VAV systems, medical devices or filter pressure monitoring. We offer a continuum of pressure package configurations, starting with board mount sensors to ruggedly built industrial packages. Our sensors use PRT or SI Capacitive technologies and can sense pressure from 0 to 15PSI.

Series	P992	P993	8MPP2	P4055
Picture				
Pressure Range	0-10" H <sub>2</sub> O		0-5 PSI	0-15 PSI
Pressure Reference	Differential		Vented Gauge	Absolute, Sealed Gauge, Vented Gauge
Hermetic/Case Isolated	No			
Technology	SI Capacitive (MEMS)		PRT (MEMS)	
Pressure Port Fittings	Ø1/8" tube w/ barb for 3/16 ID tubing		Port Ø7.82mm	1/4"-18 NPT 1/8"-27 NPTF 7/16"-20 UNF-2A (male) M10 X 1 M12 X 1.5 M14 X 1.5 M16 X 1.5 G1/4 per DIN 3852-A 1/4"-19 BSPT per DIN 3852-C 1/8"-28 BSPT per DIN 3852-C
Package Type	PCB Mount, Panel Mount	PCB Mount	Press fit with mounting screw holes	Industrial
Housing Material	PET		PPS	Brass
Seal Material	*	*	N/A	Fluorosilicone
Electrical Connector	PCB thru hole terminal pins, Leadwires	PCB thru hole terminal pins	4 position FFC connector, gold terminal	Packard Metri-Pack 150
Sensor Output	Ratiometric		Digital I <sup>2</sup> C	Ratiometric
Input	5V		2.7/3.3/5V	5V
Current Consumption	4mA max		8µA	5 mA max
Accuracy Rating (Total Error Band)	±2%FS [10° to 40°C] ±3%FS for 0-1" Range [ 10° to 40°C]		±2%FS [-40° to 85°C]	±2%FS [-20° to 100°C] ±3%FS [-40°C to 125°C]
Ingress Protection	IP00			IP67
Agency Approval/Certifications	RoHS		RoHS, REACH, CE	RoHS, CE, UL
Application Examples	VAV Systems, Portable Medical Devices, Filter Pressure Monitoring, Gaseous Leak Detection		Valves, Natural Gas Pipelines, Gas Meters	Process Controls, Filter Restriction, Test & Monitoring Equipment, Water & Level Management, Oil & Fuel Pressures

# Mid Pressure Sensors



Sensata's mid pressure sensors can sense pressure from 0 to 750 PSI. They come in a variety of different packages, ranging from plastic automotive designs to modular industrial designs. There are multiple housing options, including stainless and plated steel, brass or fiber reinforced PPA. Our sensors are RoHS and REACH compliant, and bear UL and even Drinking Water Safe certifications. Sensata's mid pressure sensors are used in various applications including HVAC, commercial beverage, engine control and construction applications.






Series	116CP	126CP	129CP	112CP	2CP5	60CP	70CP	P265	2HMP	P4000	
Picture											
Pressure Range	0-230 PSI		0-232 psi	0-650 PSI	0-750 PSI	0-750 PSI	0-750 PSI	0-750 PSI	0-750 PSI	0-750 PSI	
Pressure Reference	Sealed Gauge		Sealed Gauge	Absolute, Sealed Gauge		Absolute, Sealed Gauge, Vented Gauge			Absolute, Sealed Gauge		
Hermetic/Case Isolated				No							
Technology	Capacitive Sensing Element			Capacitive Sensing Element		Capacitive Sensing Element			PRT (MEMS)		
Pressure Port Fittings	G1/4 Thread G3/8 Thread Quick Connect Type 2 Quick Connect Options (see product datasheet)		Quick Connect	1/4"-18 NPT M12 x 1.25	1/8"-27 NPTF 1/4 SAE Flare 7/16"-20 UNF-2B (female) Braze In Tube	1/4"-18 NPTF 1/8"-27 NPTF		1/4"-18 NPT 1/8"-27 NPT 3/8"-24 UNF-2A (male) 3/8"-24 UNF-2B (female)	1/8"-27 NPTF 1/4 SAE Flare 7/16"-20 UNF-2A (male) 1/4 SAE Flare 7/16"-20 UNF-2B (female) Braze In Tube	1/4"-18 NPT 1/8"-27 NPT 1/4 SAE Flare 7/16"-20 UNF-2B (female) 7/16"-20 UNF-2A (male) 1/2"-20 UNF-2A (male)	
Package Type	Industrial		PCB Mount Enclosure	Industrial							
Housing Material	PPA	PPS	SST 304 and FPG	Brass, Plated Steel		Brass, Plated Steel, Stainless Steel			Stainless Steel		
Seal Material	EPDM		EPDM	Neoprene Nitrile	HNBR Neoprene	Nitrile Ethylene Propylene Fluorosilicone HNBR Neoprene Viton™			Nitrile Neoprene Fluorocarbon Fluorosilicone Ethylene Propylene	Hermetic	Metic: Nitrile
Electrical Connector	RAST 2.5 3 Pin RAST 2.5 4 Pin RAST 2.5 3 Pin Alternate		Flex cable	4 pin AMP Micro-Quadlok System™ connector	Packard Metri-pack 150						Packard Metri-pack 150 Deutsch M12
Sensor Output	Ratiometric		Digital I2C	Ratiometric & 10KQ@ 25°C	Ratiometric		4-20mA, Vreg	Ratiometric			
Input	5V		1.7-3.6 VDC	5V			6 to 30V	5V			
Current Consumption	8mA		<2 µA at 1Hz measurement	8mA	7mA		(Vs*-6)/0.02 ohms	5mA	8mA	3mA	
Accuracy Rating (Total Error Band)	±1.5% FS [2° to 90°C] TYP		+/-2% FS, 4 to 40°C	±1.7% FS [0°C to 85°C]	±1.0% FS [-20° to 85°C] ±1.5% FS [-40° to 125°C]	±1.0% FS [-20° to 85°C] ±1.5% FS [-40° to 125°C]	±1.5% FS [-40° to 85°C]	±2.0% FS [-20° to 100°C] ±3.0% FS [-40° to 125°C]	± 1% FS [-25° to 125°C]	±1.5% FS [0° to 125°C] ±2.0% FS [-40° to 125°C]	
Ingress Protection	IP00		IP67	IP65			IP65 / IP67		IP67		
Agency Approval/Certifications	RoHS, CE, REACH	Drinking Water Safe (WRAS), RoHS, CE, REACH	Drinking Water: WRAS, ACS, DM174, KIWA, Others - REACH, RoHS	RoHS, REACH	RoHS, REACH, UL, CE	RoHS, REACH *Consult Sensata for drinking water safe options		RoHS	RoHS, UL	RoHS, REACH, UL	
Example Applications	Residential Booster Pumps, Residential Boilers, Commercial Beverage Equipment, Heat Pumps			Residential Water Meters	HVAC, Compressors & Pumps, Engine Controls, Agriculture & Construction Equipment, Vacuum Machinery, Water Pump Booster Sets, Water and Waste Management						

# Mid-High Pressure Sensors



Built for the toughest industrial environments, Sensata's mid-high pressure sensors provide reliable solutions to a wide variety of applications. Micro Silicon Strain Gauge sensing technologies are designed to sense pressure from 0-10 bar to 0-600 bar (0-145 to 0-8700 PSI), and feature a robust hermetic pressure port design with high proof and burst pressure strength. With extreme shock and vibration capabilities, a wide operating temperature range, and many configurations available; These sensors are ideal for industrial applications including injection molding, CO<sub>2</sub> HVAC systems, and other hydraulic or pneumatic applications.

Series	PTE7100	PTE7300	PTE7500
Picture			
Pressure Range	0-10 bar to 0-600 bar (0-145 to 0-8700 PSI)		0-16 bar to 0-600 bar (0-870 to 0-8700 PSI)
Pressure Reference	Sealed Gauge, Vented Gauge		Vented Gauge
Hermetic/Case Isolated	Hermetic / Case Grounded		
Technology	Micro Strain Gauge		
Pressure Port Fittings	1/4"-18 NPTF 1/4 SAE Flare 7/16"-20 UNF-2A (male) 1/4-19 PT (BSPT) (R1/4) G1/4 per DIN 3852-E		
Package Type	Industrial		
Housing Material	Stainless Steel		
Seal Material	External: FKM; HNBR		
Electrical Connector	Packard Metri-Pack 150 DIN 175301-803 Form A M12 x1 4-Pole Fly-Lead 3 pole harness Deutsch DT04-3P GTMS 4-pole M12x1	GTMS 4-pole M12x1 5x1 2mm pitch pin to header	M12 5-pin plastic
Sensor Output	0.5-4.5VDC, 0-5VDC, 1-5VDC, 0-10VDC, 4-20mA	I <sup>2</sup> C (13 ENOB + CRC)	CANopen
Input	12-32VDC for 0-10VDC Output, 8-32VDC for 4-20mA Output, 8-32VDC for 0-5VDC Output, 8-32VDC for 1-5VDC Output, 8-32VDC for 0.5-4.5VDC Output, 5±0.25VDC for 0.5-4.5VDC Output	3.3VDC to 5.5VDC	9-32 VDC
Current Consumption	<6.5mA	<4mA	
Accuracy (Best Fit Straight Line)	±0.25%FS @25°C		±0.5%FS @25°C
Accuracy Rating (Total Error Band)	±1.5%FS [-20° to 85°C]		
Agency Approval/Certifications	RoHS, REACH, CE, UKCA		RoHS, REACH, CE, UKCA, CiA Compliant
Application Examples	Hydraulic Systems, Pneumatic Controls, Refrigerant Control & Recovery, On & Off-Highway Vehicle, Pumps & Compressors, Machine Tools, Injection Molding Equipment, Plant Engineering & Automation		

## Americas

+1 (800) 350 2727  
sensors@sensata.com  
switches@sensata.com

## Europe, Middle East & Africa

+359 (2) 809 1826  
pressure-info.eu@sensata.com

## Asia Pacific

SHANGHAI, CHINA  
+86 (21) 2306 1500  
sales.isasia@list.sensata.com

JAPAN  
+81 (45) 277 7117  
sales.isasia@list.sensata.com

KOREA  
+82 (31) 601 2004  
sales.isasia@list.sensata.com

INDIA  
+91 (80) 67920890  
sales.isasia@list.sensata.com

REST OF ASIA  
+886 (2) 27602006 ext 2808  
sales.isasia@list.sensata.com

### About us

Sensata Technologies is one of the world's leading suppliers of sensing, electrical protection, control and power management solutions with operations and business centers in twelve countries. Sensata's products improve safety, efficiency and comfort for millions of people every day in automotive, appliance, aircraft, industrial, military, heavy vehicle, heating, air-conditioning and ventilation, data, telecommunications, recreational vehicles and marine applications. For more information please visit Sensata's website at [www.sensata.com](http://www.sensata.com)

Copyright © 2024 Sensata Technologies, Inc.

02/2024

CAT/ST/PSR/EN

