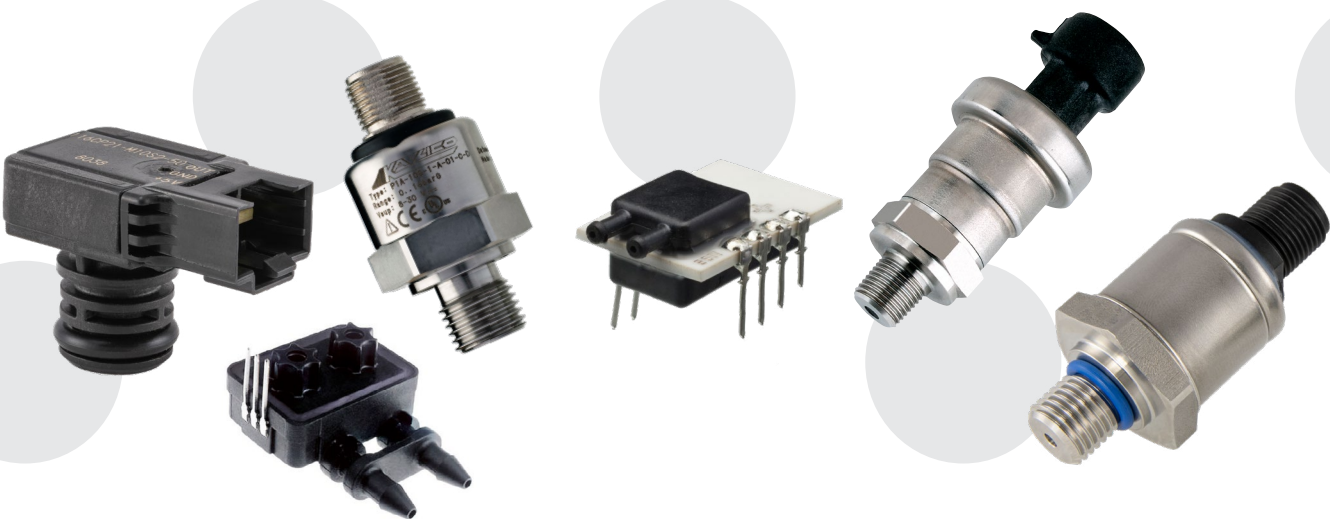# PRESSURE SENSOR SELECTION GUIDE

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	P1J	P1K	P992	P993	8MPP2	P4055
Picture						
Pressure Range	0-10" H$_2$O				0-5 PSI	0-15 PSI
Pressure Reference	Differential				Vented Gauge	Absolute, Sealed Gauge, Vented Gauge
Hermetic/Case Isolated	No					
Technology	PRT (MEMS)	SI Capacitive (MEMS)			PRT (MEMS)	
Pressure Port Fittings	Barbed port, Ø1.9[.08]		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		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		PCB thru hole terminal pins, Leadwires	PCB thru hole terminal pins	4 position FFC connector, gold terminal	Packard Metri-Pack 150
Sensor Output	Digital I²C	Ratiometric			Digital I²C	Ratiometric
Input	2.7-5.5V	5V			2.7/3.3/5V	5V
Current Cosumption	<2.5mA	4mA max			8µA	5 mA max
Accuracy Rating (Total Error Band)	2.75% FS [0° to 60°C] ±5% FS [-20° to 0°C] ±5% FS [+60°Cto 85°C]		±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°Cto 125°C]
Ingress Protection	IP00					IP67
Agency Approval/ Certifications	RoHS				RoHS, REACH, CE	RoHS, CE, UL
Application Examples	VAV Systems, Portable Medical Devices, Filter Pressue 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	P1A	112CP	2CP5	60CP	70CP	P265	2HMP	P4000
Picture										
Pressure Range	0-230 PSI		0-200 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		Absolute, Sealed Gauge, Vented Gauge	Absolute, Sealed Gauge	Absolute, Sealed Gauge, Vented Gauge				Absolute, Sealed Gauge	
Hermetic/Case Isolated	No								Yes	
Technology	Capacitive Sensing Element			Capacitive Sensing Element + Thermistor	Capacitive Sensing Element				PRT (MEMS)	
Pressure Port Fittings	G1/4 Thread G3/8 Thread Quick Connect Type 2 Quick Connect Options (see product datasheet)		1/4"-18 NPTF 1/8"-27 NPTF 1/4 SAE Flare 7/16"-20 UNF-2A (male) 1/4 SAE Flare 7/16"-20 UNF-2B (female) G1/4 per DIN 3852-A G1/4 per DIN 3852-E 1/4"-19 BSPT per DIN 10226	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									
Housing Material	PPA	PPS	Stainless Steel	Brass, Plated Steel		Brass, Plated Steel, Stainless Steel		Stainless Steel		
Seal Material	EPDM		External: Aluminum or copper washer G1/4 Internal: Neoprene or Fluorosilicone [FVMQ] Internal/External: Ethylene Propylene [EPDM] or Fluorocarbon - [FKM (VITON)]	Neoprene Nitrile	HNBR Neoprene	Nitrile Ethylene Propylene Flourosilicone 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		18mm EN 175301-803-A003MS 4 pole M12 4 pole according to IEC 61076-2-101 Packard Metri-Pack 150	4 pin AMP Micro-Quadlok System™ connector	Packard Metri-pack 150					Packard Metripack 150 Deutsch M12
Sensor Output	Ratiometric		Ratiometric, 4-20mA, Vreg	Ratiometric & 10KΩ@ 25°C	Ratiometric		4-20mA, Vreg	Ratiometric		
Input	5V		5V, 9-30V, 8-30V, 14-30V	5V			6 to 30V	5V		
Current Cosumption	8mA		<600mW, <25mW	8mA	7mA		(Vs*-6)/0.02 ohms	5mA	8mA	3mA
Accuracy Rating (Total Error Band)	±1.5% FS [2° to 90°C] TYP		±1% FS [-30° to 120°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		IP65 IP67 IP69	IP65				IP65 / IP67	IP67	
Agency Approval/Certifications	RoHS, CE, REACH	Drinking Water Safe (WRAS), RoHS, CE, REACH	CE, RoHS, UL	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		Vacuum Machinery, Water Pump Booster Sets, HVAC, Water & Waste Management	HVAC, Compressors & Pumps, Engine Controls, Agriculture & Construction Equipment, Vacuum Machinery, Water Pump Booster Sets, Water and Waste Management						

High Pressure Sensors

Built for the toughest industrial environments, Sensata's high pressure sensors provide reliable solutions to a wide variety of applications. Micro Fused Strain Gauge (MSG) sensing technologies are designed to sense pressure from 0 to 8700 PSI, and feature a robust hermetic pressure port design with high burst pressure strength. With extreme shock and vibration capabilities, a wide operating temperature range, and many configurations available; Sensata's high pressure sensors are ideal for industrial applications including injection molding, CO_2 HVAC systems, and other hydraulic or pneumatic applications.

Series	PTE7100/7300
Picture	
Pressure Range	0-5800 psi
Pressure Reference	Sealed Gauge
Hermetic/Case Isolated	Hermetic / Case Grounded
Technology	Micro-Fused Strain Gauge
Pressure Port Fittings	1/4"-18 NPTF 1/4 SAE Flare 7/16"-20 UNF-2A (male) 1/4 SAE Flare 7/16"-20 UNF-2B (female) 1/4-19 PT (BSPT) (R1/4) G1/4 per DIN 3852-E Braze In Copper Tube
Package Type	Industrial
Housing Material	Stainless Steel
Seal Material	External: FKM; NBR
Electrical Connector	Packard Metri-Pack 150 DIN Form A M12 4-Pole Fly-Lead 3 pole harness Deutsch DT04-3P
Sensor Output	0-5VDC, 1-5VDC, 0-10VDC, 4-20mA, I²C
Input	13-32VDC for 0-10VDC Output, 8-32VDC for 4-20mA Output, 8-32VDC for 0-5VDC Output, 5±0.25VDC for 0.5-4.5VDC Output
Current Consumption	Analog: <6.5mA, Digital: <4mA
Accuracy Rating (Total Error Band)	±1.5%FS [-20° to 85°C]
Ingress Protection	IP65-IP67, IP68 Available for M12 with glass to metal seal
Agency Approval/Certifications	RoHS, REACH, UL, CE
Application Examples	Hydraulic Systems, Pneumatic Controls, Refrigerant Control & Recovery, On & Off-Highway Vehicle