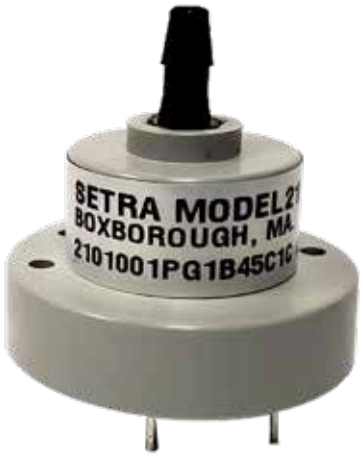

Setra's Model 210 is the ultimate in circuit board-mountable pressure transducers. In addition to the convenience of quick PCB installations, the 210 offers wide media compatibility with its stainless steel sensor construction. The calibrated high level output eliminates the need for additional circuit and calibration labor costs.

Packaged in a compact plastic enclosure (1.25" diameter footprint), the Model 210 incorporates Setra's unique capacitance technology, known worldwide for its solid stability, accuracy and thermal performance. With the custom ASIC circuit and capacitive sensor, the Model 210 performs with reliability and EMI/RFI immunity. The Model 210 can be customized to accommodate various package and performance requirements, and is designed for OEM applications.

Model 210

Circuit Board-Mountable Pressure Transducer

Features

- Fully signal conditioned
- High level output
- Excellent long term stability
- RFI/EMI immunity
- Non-oil-filled sensor
- Easily customized package
- Optional excitations, outputs, and accuracies
- Wide operating temperature range
- High signal to noise ratio
- Meets CE conformance standards

Applications

- Analytical measurement and control
- OEM medical systems

Pressure ranges

0 psig to:	Proof Pressure (psig)	Burst Pressure (psig)
1	2	250
2	4	250
5	10	500
10	20	500
15	30	500
50	100	500
100	200	500
150	300	500

Note: Our pressure sensor products are not necessarily designed or manufactured for use as a "critical component" in a "critical device", as those terms are defined in the Medical Devices Subchapter contained in the Food and Drug Administration Rules, 21CFR800.
Note: Setra adheres to strict quality standards including ISO 9002 and ANSI-Z540-1. The calibration of this product is NIST traceable.

Specifications

Performance data	Standard	Optional
Accuracy RSS	±1.0% FS	±0.5% FS
Non-linearity, (BFSL)	±0.98% FS	±0.45% FS
Hysteresis	0.20% FS	0.16% FS
Non-repeatability	0.05% FS	0.05% FS

Thermal effects

Zero shift %FS/100°F(%FS/50°C)	<±2.0 (<±1.8)
Span shift %FS/100°F(%FS/50°C)	<±1.5 (<±1.4)
Long term stability	0.5% FS/YR

Electrical data

Circuit	3-Wire (+In, +Out, Common)
Excitation[1]	5VDC (4.9 to 8.1)
Output[2]	0.5 to 4.5 VDC
Output impedance	<100 Ohms
Response time	10 Milliseconds

[1]See ordering code for excitation/ output availability.
[2]Calibrated into 50K ohm load or greater.
Zero output factory set to within ±25 mV.
Span (full scale) output factory set to within ±40 mV.

Specifications subject to change without notice

Dimensional Data

Case	Fire retardant glass-filled polyester
Sensor	Stainless steel 17-4 and 17-7 PH
Pressure fittings	Barbed nylon pressure fitting for 1/8"or 1/16" I.D. tubing
Electrical Connection	Solder pins, 0.030" round on 0.2" centers
Weight (approx.)	0.5 ounces

Environmental Data

Operating temperature	-4 to +176°F (-20 to +80°C)
Storage temperature	-40 to +185°F (-40 to +85°C)
Operating humidity	0 to 95% RH non-condensing
Storage humidity	0 to 98% RH non-condensing
Vibration	5g Operating
Shock	<100g

Pressure media

Gases or liquids compatible with 17-4 PH, 17-7 PH series stainless steel, nylon, polyester, and silicone.

Ordering information

Example part number: 2101001PG1B35C1C

Model 210 with a Pressure range of 0 to 1 PSI, barbed fitting, 12 VDC excitation, 0.5 to 4.5 VDC output with PC board mountable pins, and an accuracy of ±1.0%.

2	1	0	1												
[1]				[2]					[3]		[4]		[5]		[6]

[1]

Model	
2101	Model 210

[2]

Pressure range	
001PG	1 PSIG
002PG	2 PSIG
005PG	5 PSIG
010PG	10 PSIG
015PG	15 PSIG
050PG	50 PSIG
100PG	100 PSIG
150PG	150 PSIG
100PC	-14.7 to 100 PSIG

[3]

Fitting	
1B	Straight, 1/8" ID tube, 3/16" Barb
1D	Right angle, 1/8" ID tube, 3/16" Barb
2D	Right angle, 1/16" ID tube, 3/32" Barb

[4]

Exc./ Output	
45	5 VDC/ 0.5-4.5 VDC

[5]

Elec. termination	
C1	PC board mountable pins

[6]

Accuracy[1]	
Standard	
C	±1.0% FS
H	±0.5% FS
Options (w/Cal Cert)	
G	±1.0% FS
D	±0.5%

[1]RSS of Non-Linearity, Hysteresis, and Non-Repeatability

While we provide application assistance on all Setra products both personally and through our literature, it is the customer's responsibility to determine the suitability of the product in the application.

Please contact factory for configurations not shown.

Dimensions