Model 201 Pressure Transducer

Very Low Differential Gauge Pressure

Corrosive Gases or Liquids



Setra's Model 201 is an accurate, low cost, pressure transducer for measuring very low differential or gauge pressures. The 201's all-welded no o-ring construction results in a leak-free design, ideal for the most critical low range applications. The 201 process connection is designed to be used with pressure media compatible with stainless steel and 600 Series Inconel'.

Setra's patented variable capacitance sensor design combines the ultimate in simplicity, with high accuracy and superior thermal stability. It features an Inconel' diaphragm and an insulated electrode, which forms a variable capacitor. As pressure increases or decreases, the capacitance changes. This change in capacitance is detected and converted to a fully conditioned linear current output signal.

Its rugged design, high overpessure capability and wide operating temperature, make the Model 201 ideal for the most demanding applications.

0 to 10 mbar 0 to 2 PSI 0 to 5" WC 0 to 1 kPa 0 to 20 PSI 0 to 10" WC 0 to 20 mbar 0 to 2 kPa 0 to 100 mbar $0 \text{ to } \pm 1 \text{ PSI}$ 0 to 50" WC 0 to 10 kPa 0 to ± 2 PSI 0 to ±2.5" WC 0 to ± 5 mbar 0 to +0.5 kPa 0 to ±5" WC 0 to ± 10 mbar $0 \text{ to } \pm 1 \text{ kPa}$ 0 to ±25"WC 0 to \pm 50 mbar 0 to ±5 kPa

Gauge Pressure Ranges

Hochwertige Messtechnik und Beratung aus einer Hand



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NOTE: Setra quality standards are based on ANSI-Z540-1. The calibration of this product is NIST traceable. Patent Pending

Inconel is a registered trademark of Inco Alloys International, Inc. Huntington, WV, USA.

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Applications

- Vapor Recovery Systems
- Exhaust Gas Control Systems
- Industrial Scrubbers
- Low Pressure Industrial

Features

- Low Full Scale Range
- All-Welded Construction
- No O-Rings
- Wide Compensated Operating Temperature
- High Overpressure of 10 PSI on Ranges up to 2 PSI and 45 PSI on 20 PSI Ranges
- Can be used for Gauge or Differential Pressure Measurements
- Meets & Conformance Standards

When it comes to a product to rely on - choose the Model 201. When it comes to a company to trust - choose Setra.



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Performance Data

Accuracy RSS [°] (at constant temp) Non-Linearity, BFSL Hysteresis Non-Repeatability) ±0.5% FS ±0.45% FS 0.025% FS 0.025% FS
<u>Thermal Effects</u> Compensated Range	-25 to +175 (-7 to +80) 2.0 (1.8) 1.5 (1.4)
Warm-up Shift Response Time Long Term Stability Proof Pressure***	0.1% FS/15 Minutes 20 Milliseconds 0.5% FS/1 YR 10 PSI (Ranges up to 2 PSI 45 PSI (20 PSI Range)
Burst Pressure	100 PSI

Burst Pressure

2

0

*RSS of Non-Linearity, Non-Repeatability and Hysteresis.

**Units calibrated at nominal 70°F. Maximum thermal error computed from this datum.

****Proof Pressure: The maximum pressure that may be applied without changing performance beyond specifications (±0.5% FS zero shift).

Outline Drawing

Model 201 Specifications

Environmental Data

Temperature	
Operating* 약 (℃)	-40 to +175 (-40 to +80)
Storage F (°C)	-40 to +185(-40 to +85)
Acceleration	10g Maximum
Shock**	50g Operating
*Operating temperature limits of the electronics only. Pressure media temperatures may be considerably higher or lower. **Mil-Std. 202F, Method 213B, Cond. C	

Physical Description

Case*	Stainless Steel	
Pressure Fitting	1/4" NPT External	
Vent**	Through Barbed Fitting at Bottom of	
	Case	
Electrical Connection	2ft. Multiconductor Cable	
	3 Screw Terminal Block	
Zero/Span Adjustment	Top External Access	
Weight	6 ounces	
*NEMA 4 Rated when A1 electrical termination is ordered.		
**When T1 Terminal strip electrical termination is ordered, venting is through		
zero or span screw		

Electrical Data (Current)

Circuit	2-Wire	
Output*	4 to 20 mA**	
External Load	0 to 800 Ohms	
Minimum supply voltage (VDC) = 12 + 0.02 x		
(Resistance of receiver plus line).		
Maximum supply voltage (VDC) = $30 + 0.004 x$		
(Resistance of receiver plus lin	ne).	
*Calibrated at factory with a 24 VDC loop supply voltage and a 250 ohm load. **Zero output factory set to within ±.08mA.		
**Span (Full Scale) output factory se	et to within ±.08mA.	
Droccuro Modia		

Pressure Media

Positive Pressure Media Liquids or Gases Compatible with Stainless Steel and Inconel. **Reference Pressure Media** Clean Dry Air or Non-Corrosive G

Specifications subject to change without notice.





personally and through our literature, it is the customer's responsibility to determine the suitability of the product in the application.

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