Model 730

Vacuum Capacitance Manometer

Setra's Model 730 is a high accuracy capacitance manometer (also referred to as Capacitance Diaphragm Gauge (CDG)), for measuring low vacuum pressure ranges that are critical to the control of the processes in photovoltaic, semiconductor and industrial markets. Its ±0.5% of reading accuracy and precise resolution make the 730 the preferred choice over the competition. The 730 utilizes all Inconel® wetted material which enables it to be used with the aggressive media in semiconductor processes. The direct measurement design of the 730 provides accurate measurements of the media regardless of the composition of the gas mixture in the application.

High Performance For Demanding Applications

The Model 730 capacitance manometer uses a single diaphragm variable capacitance sensing element for demanding semiconductor and industrial vacuum applications. Its percent of reading accuracy, high resolution and wide dynamic range, make the 730 an idea fit for critical manufacturing processes.

Versatile Compatibility With Inconel® Design

The 730 is designed using Inconel® for all its wetted parts. Inconel® is highly resistive to the corrosive media used in semiconductor and industrial vacuum processes. Their material, along with the all welded construction, ensures long life within the application.

Direct Pressure Measurement

The Model 730 is designed with a diaphragm that measures pressure changes directly at the point of use. Unlike other capacitance manometers in the industry, the 730 measures direct pressure; it is independent of the gas mixture being measured. This enables the 730 to have higher accuracy than a manometer that can only measure indirect pressure.

- **Chemical Resistive Inconel® Design**
- **Precise Low Vacuum Measurements**
- **Application Specific Pressure Fittings**

Model 730 Features:

- High Accuracy: ±0.25% of Reading
- Tensioned Diaphragm Provides Superior Performance
- Wide Compensated Operating Temperature
- Fast Response Time With Low Circuit Noise
- Not Sensitive to Environmental Changes
- Exceptional Overpressure Design
- CE & RoHS Compliant

Applications

- Semiconductor Process Chambers
- Petrochemical
- Plasma Sterilizers
- Vacuum Packaging

Phone: 800-257-3872 • Fax: 978-264-0292 • setra.com

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ORDERING INFORMATION

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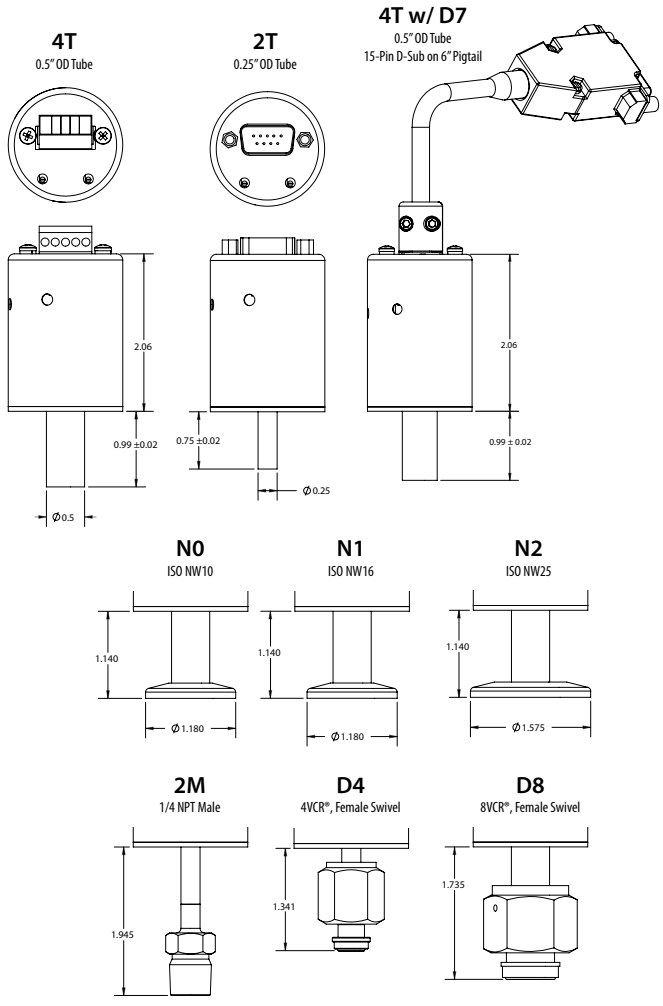
Model	Pressure Range				Pressure Type		Fitting		Output		Termination		Accuracy	
730G = 730	010T	10 Torr	100M	1000 mBar	A	Absolute	4T	0.5″ OD Tube	2B	0-5 VDC	D9	9-Pin D-Sub	K	±0.5% of Reading
	020T	20 Torr	10CM	1000 mBar			N0	ISO NW10	2C	0-10 VDC	T1	Terminal Strip	A	±0.25% of Reading
	100T	100 Torr	001K	1 kPa[1]			N1	ISO NW16			D7	15-Pin D-Sub on 6″ pigtail		
	200T	200 Torr	002K	2 kPa			N2	ISO NW25						
	10CT	1000 Torr	010K	10 kPa			D8	8 VCR®, Female Swivel						
	010M	10 mBar	100K	100 kPa			2T	0.25″ OD Tube						
	020M	20 mBar					D4	4 VCR Female Swivel						
							2M	0.25″ NPT Male						

[1]Only available with K Code (±0.5% of Reading) Accuracy. Please contact factory for versions not shown.

Ordering Example: 730G010TA4T2BD9K= Model 730, 10 Torr pressure range, Absolute pressure type, 0.5″ OD Tube fitting, 0-5VDC output, 9-Pin D-Sub termination, ±0.5% of Reading accuracy

DIMENSIONS



GENERAL SPECIFICATIONS

Performance Data		Physical Description	
Accuracy[1]	±0.5% of Reading ±0.25% of Reading (Opt)	Pressure Fittings	See Ordering Information
Response Time	<20 ms	Wetted Material	Inconel®
Resolution	Infinite, limited only by output noise level (≤0.005% FS)	Electrical Connection	5-Pin Screw Terminal, 9-Pin D-Sub, or 15-Pin D-Sub on 6″ Pigtail
Thermal Effects[2]		Case	Stainless Steel
Compensated Range	0 to +50°C	Cavity Volume	<6.0 cc
Zero Shift	0.25% FS/50°C	Weight (approx.)	<250 g
Span Shift	1.35% Reading/50°C	**Electrical Data (Voltage)**	
Long Term Stability[3]	0.5% FS/1 YR, excluding environmental effects	Excitation/Output[4]	12 to 30 VDC for 0-10 VDC 9 to 30 VDC for 0-5 VDC
		Current Consumption	<10 mA max
Pressure Media		Output Load	>10 kΩ Load
Gases or liquids compatible with Inconel®. Inconel® wetted material is for 0.5″ tube option only. Other fitting options will add Stainless Steel.		Output Impedance	<1 ohm
		Circuit	3-Wire
Environmental Data			
Temperature			
Operating	0 to +80°C		
Approvals			
CE, RoHS			

[1]Includes Non-Linearity, Non-Repeatability and Hysteresis
[2]Units calibrated at nominal 66°F. Maximum thermal error computed from this datum.
[3]±1.0% FS/yr for ranges <100 Torr full scale when operated at 80°C
[4]Calibrated into a 50K ohm load, operable into a 5000 ohm load or greater

PROOF PRESSURE

Range	Proof PSIA
All ranges	45 PSIA

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