Model 370
Digital Pressure Gauge

DESCRIPTION

Setra Systems Model 370 offers extremely high accuracy and unmatched stability in a digital output configuration. Environmental monitoring and test & measurement systems around the world rely on Setra's experience in barometric pressure measurement instrumentation, as well as high accuracy measurements of higher pressures. The 370 utilizes Setra's unique SETRACERAM™ sensor, which is combined with advanced microprocessor based circuitry and sophisticated firmware to provide system accuracy to better than ±0.02% FS.

The Model 370 Digital Pressure Gauge is an extremely versatile instrument. Pressure and altitude data is displayed on a 6 digit LCD and is also accessible through a bidirectional RS-232 port. A numeric keypad is provided for easy access to engineering unit conversions, min/max tracking, entry of Hi/Lo alarm setpoints and calibration procedures. The 370 is also available with an optional rechargeable battery pack to bring lab accuracy to the field.

BENEFITS

- ±0.02% Full Scale Accuracy
- High Resolution 6 Digit LCD Display for Pressure or Altitude Monitoring
- Bidirectional RS-232 Digital Communications I/O Port
- Engineering Unit Conversions for Pressure and Altitude
- Digital Altimeter Setting Indicator (DASI) and Corrected Altimeter Mode
- Programmable Non-Linear Functions

APPLICATIONS

- Automatic Weather Reporting Systems
- Pressure Transfer Standard
- Altimeter Calibration Recertification
- Lab or Production Process Monitoring
- Altitude Chambers

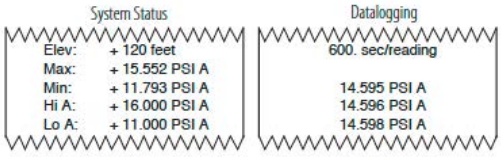
SPECIFICATIONS

Performance Data		Physical Description			
Accuracy[1]	±0.02% FS[2] at 70° F(21°C)	Pressure Fitting	1/8" - 27 NPT Internal	Display	6 digit Liquid Crystal Display (LCD) with annunciators for pressure/altitude engineering units (PSI, mbar, hPa, mmHg, in.Hg, mmH2O, in.H2O, ft, m, units), HI/LO ALARM, pressure signal stability (O.K.) and barometric pressure corrected to sea level (SEA LEVEL).
Non-Linearity	±0.012% FS (End Point)	Power Cord	5 Ft. Length, 3-Prong		
Hysteresis	0.010% FS	Weight	12 lbs. (with Battery Pack)		
Non-Repeatability	0.010% FS	**Thermal Effects [3]**		Digital Output	Bidirectional RS-232 interface. All display data can be transmitted on the interface and all keyboard functions and commands can be duplicated using a remote terminal or keyboard.
Pressure Media		Compensated Range °F(°C)	+32 to +110 (0 to +45)		
Clean dry air or other gases (non-condensable)		Zero Shift %FS/°F (%FS/°C)	0.002 (0.004)		
		Span Shift %FS/°F (%FS/°C)	0.001 (0.002)	Operating Power	110/220 VAC (-10% to +20%), 50/60 Hz., optional 12 VDC internal rechargeable battery pack (approx. 8 hours between charges). Approximately 4 watts power consumption.
[1] RSS of Non-Linearity, Non-Repeatability and Hysteresis [2] FS = 300 hPa/mb for 800-1100 hPa/mb range; 500 hPa/mb for 600-1100 hPa/mb range [3] Unit calibrated at 70°F. Maximum thermal error is computed from this datum.		Altitude Resolution	1 ft. (4 ft. for 100 psia range)		
		Stability	0.005% FS, 24 hours 0.02% FS, 30 days 0.05% FS, 1 year	Digital Interface	Bidirectional RS-232 interface. Access data, functions and commands via an RS-232 compatible remote terminal, data acquisition system or data storage device. 300, 600, 1200, 2400, 4800, 9600 Baud Rate, adjustable. Typical data printouts below:

PRESSURE RANGES

Type of Pressure	Pressure Range	Readout or Report	Altitude Range[1]
Barometric	600 to 1100 mb/hPa 800 to 1100 mb/hPa	600.00 to 1100.00 800.00 to 1100.00	-1000 to 13,800 ft. -1000 to 6,400 ft.
Absolute	0 to 10 psia 0 to 20 psia 0 to 50 psia 0 to 100 psia	10.0000 20.0000 50.0000 100.000	10,300 to 100,000 ft. -1000 to 100,000 ft. -1000 to 100,000 ft. -1000 to 100,000 ft.

[1] Altitude is calculated using a pol Smithsonian Meteorological Tables, Vol. 114"
Ranges greater than 20 psia not recommended for altimeter recertification.
Proof Pressure: 150% of full scale pressure range.



ISO 9001

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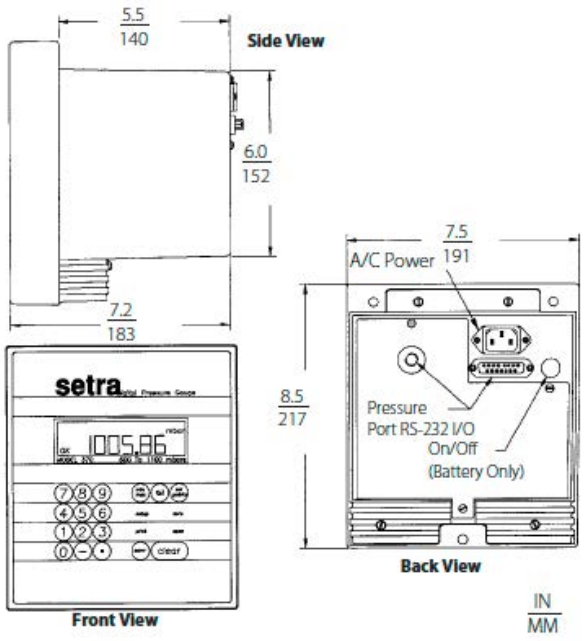
DRAWINGS & DIMENSIONS



ORDERING INFORMATION

3 7 0 1 – [ ][ ][ ] – [ ] – [ ] – [ ][ ] – [ ][ ] – [ ] – [ ][ ]

Model		Pressure Range		Units		Pressure Type		Fitting		Output		Accuracy		Options	
3701	370	600	600-1100	M	mb/hPa	A	Absolute	1F	1/8" NPT Internal	VT	RS-232/6 Digit LCD/120 VAC	Y	±0.02% FS	NN	None
		800	800-1100	M	mb/hPa									L	Etched SS Tag
		010	0-10	P	PSI									5	Installed Battery Pack
		020	0-20	P	PSI										
		050	0-50	P	PSI										
		100	0-100	P	PSI										

Both boxes must be filled in alphanumeric order:
- If No options: N + N
- If 1 option: Option Code + N
- If 2 options: Option Code + Option Code

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