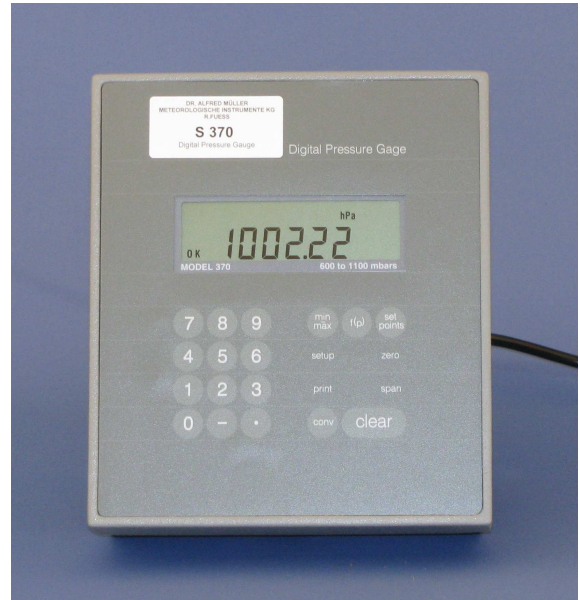


DR. ALFRED MÜLLER
METEOROLOGISCHE INSTRUMENTE KG
R. FUESS

S 370 DIGITAL PRESSURE GAUGE

The Setra 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 models utilize Setra's unique SETRACERAM™ sensor, which is combined with advanced microprocessor based circuitry and sophisticated firmware to provide system accuracy to better than $\pm 0.02\%$ full scale.

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 key pad is provided for easy access to engineering unit conversions, min/max tracking, entry of Hi/Lo alarm setpoints, nonlinear functions and calibration procedures. The 370 is also available with an optional rechargeable battery pack to bring lab accuracy to the field.



Pressure Ranges

Type of Pressure	Pressure Range	Readout or Report	Altitude Range ¹
Barometric	600 to 1100 hPa/mb	600.00 to 1100.00	-1000 to 13,800 ft.
	800 to 1100 hPa/mb	800.00 to 1100.00	-1000 to 6,400 ft.
Absolute	0 to 10 psia	10.0000	10,300 to 100,000 ft.
	0 to 20 psia	20.0000	-1000 to 100,000 ft.
	0 to 50 psia	50.0000	-1000 to 100,000 ft.
	0 to 100 psia	100.0000	-1000 to 100,000 ft.

Proof Pressure: 150% of full scale pressure range

Pressure Media: Clean dry air or other gases (non-condensable)

Performance Data

Accuracy	$\pm 0.02\%$ FS ³ at 70°F (21°C)
Non-Linearity	$\pm 0.012\%$ FS (End Point)
Hysteresis	0.010% FS
Non-Repeatability	0.010% FS
Thermal Effects⁴	
Compensated Range °F (°C)	+32 to +110 (0 to +45)
Zero Shift %FS/°F (°C)	0.002 (0.004)
Span Shift %FS/°F (°C)	0.001 (0.002)
Altitude Resolution	1 ft. (4 ft. for 100 psi range)
Stability	0.005% FS, 24 hours
	0.02% FS, 30 days
	0.05% FS, 1 year

- Notes:
- Altitude is calculated using a polynomial from "Smithsonian Meteorological Tables, Vol. 114". Ranges greater than 20 psia not recommended for altimeter certification.
 - RSS of Non-Linearity, Non-Repeatability and Hysteresis.
 - FS = 300 hPa/mb for 800-1100 hPa/mb range; 500 hPa/mb for 600-1100 hPa/mb range.
 - Unit calibrated at 70°F. Maximum thermal error is computed from this datum.

Operating Power

Model 370: 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.
 Model 470 5 VDC $\pm 1\%$, 70 mA max.

DR. ALFRED MÜLLER METEOROLOGISCHE INSTRUMENTE KG R. FUESS

Output Data

Model 370

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).

Digital Output

Bidirectional RS-232 interface. All display data can be transmitted on the interface (Model 370) and all keyboard functions and commands can be duplicated using a remote terminal or keyboard.



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 are listed on the right:

System Status	Datalogging
Elev: + 120 feet	600. sec/reading
Max: + 15.552 PSI A	14.595 PSI A
Min: + 11.793 PSI A	14.596 PSI A
Hi A: + 16.000 PSI A	14.598 PSI A
Lo A: + 11.000 PSI A	

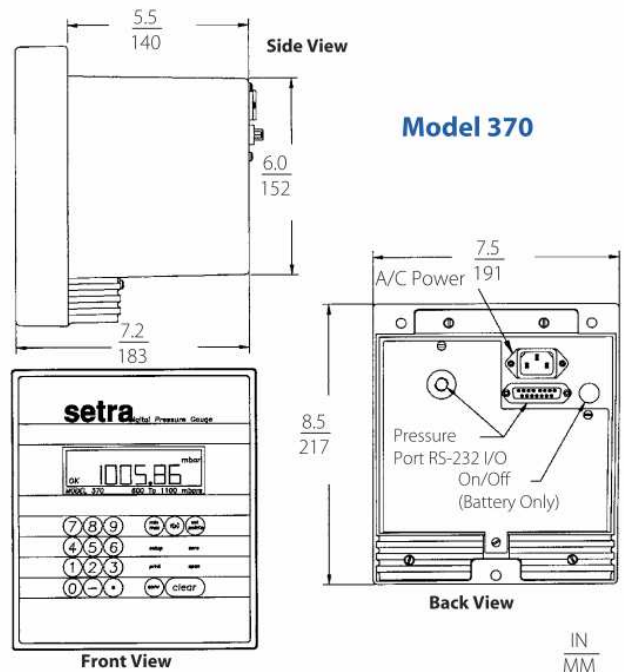
Model 370 Physical Description

Pressure Fitting 1/8" - 27 NPT Internal
Power Cord 5 Foot Length, 3-Prong
Weight 12 lbs. (with Battery Pack)

Available Options

624 Installed Rechargeable Battery Pack
864 19 inch Rack Mount Kit

Outline Drawings



DR. ALFRED MÜLLER
METEOROLOGISCHE INSTRUMENTE KG
Chausseestraße 39 / 42c
D-15712 Königs Wusterhausen

Tel.: +49 3375 9025-32
Fax: +49 3375 9025-36
e-mail: dr.a.mueller-r.fuess@t-online.de
www.rfuess-mueller.de