Ultra-Low Pressure Generating and Documenting Calibrator

Micro-Cal™ Model 869

The Ultimate Low Pressure Solution

Immediate ROI
Reduces labor by 75%

Fast and Easy Calibration
Menu driven operator interface

Superior Performance
Control Stability and Precision to 0.0002" W.C.

NASA Patented Technology
Lowest Pressure Generating Capability

setra

REVOLUTIONARY PERFORMANCE

Accuracy

Highest accuracy to support certification of all low DP critical process pressure sensors

- **True low range dual reference pressure sensors with NIST traceability**
- **Dual reference design provides maximum accuracy, repeatability and resolution**

Pressure Generation

- **User selectable automated pressure generation profiles with up to 101 calibration points**
- **Enhanced patented NASA low pressure generating technology - achieves ±0.0002 in. W.C. low pressure regulation - micro in. of W.C. per step resolution**
- **True differential pressure generation - both high and low pressure ports connect to the unit under test, providing isolation from process background pneumatic disturbances**
- **True zero pressure generation - high and low pressure ports shorted to produce stable, noise-free zero pressure input - outperforming competitive active zero pressure control systems**

Measurement

Accuracy	±0.04% FS
Precision	0.0002" W.C.
Calibration Stability (Pressure Span)	0.2% Rdg./yr
Calibration Stability (mA and Voltage)	0.01% FS/yr
Calibration Adjustment	zero tare
Resolution	up to 1 ppm
Compensated Temperature Range	40°F to 120°F
Storage Temperature Range	40°F to 160°F
Temperature Effect (Zero)	none, zero tare
Temperature Effect (Span)	0.01%/°F
Certification	NIST traceable certification for reference pressure sensors and voltage/current meters

Control

Controlled Pressure Stability	0.0002" W.C., typical
Minimum Controlled Pressure	0.00005" W.C.
Dual Reference Pressure Ranges	see order info.
Pressure Types	gauge and differential
Overpressure Limit	5 psid
Control Time	user selectable

Specifications - General

Pressure Units (Selectable)	in. W.C., Pa, kPa, mbar, cm W.C.
Warmup	30 minutes
Reading Rate	20 readings/second, typical
Gravity/Orientation	negligible
Shock and Vibration	5g, maximum
Communications	RS 232
Display	3.5" transflective type TFT color, QVGA, 64-k color
Keypad	pocket PC touch pad and external ASCII keyboard plug
Size	11" x 14" x 6" (27.9 cm x 35.6cm x 15.2 cm)
Weight	18 lbs. (8.2kg)
Pressure Media	clean, dry. non-corrosive gases
Power	120/240 AC, 50/60Hz, battery NiMH - 8 hours operation
Pressure Transducer Interface	
Pressure Fittings	barbed, plug-in o-ring quick connects
Electrical	banana plug jacks
Voltage Meter	±0.005% FSO at ±10 VDC
Current Meter	±0.005% FSO at 4-20mA
Excitation	24 VDC nominal for 4-20 mA output, 5 to 24 VDC for voltage output

Unique Features

SIMPLE STEP-BY-STEP INTERFACE

- Additional Features
  - 21 CFR Part 11 Compliant
  - Both pressure generation and monitoring modes to verify HVAC system performance

- Fully Automated Calibration System
  - Easy step-by-step user interface process
  - Designed with built-in leak test function
  - Provides accuracy and stability plots
  - Handles multiple engineering units

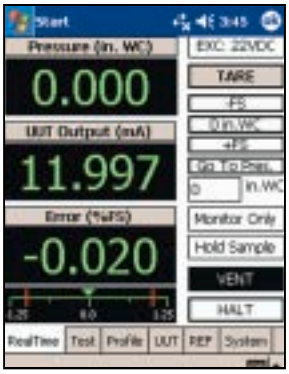
- Calibration management database
  - Store and retrieve transducer profiles
  - Generate as found and as left calibration data
  - Print calibration certificates

UUT (Unit Under Test) Setup - Step 1

- Select transducer profile from user configurable list
- Select accuracy specification
- Select output (voltage or current)

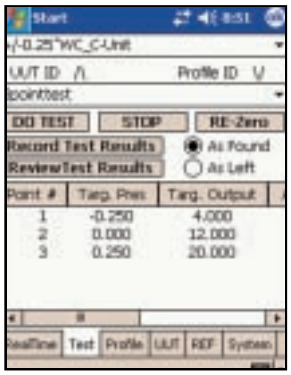
Real Time - Step 2

- Screen allows you to view current pressure and output for calibration and testing
- Apply selected pressure to perform adjustment (zero, span or linearity)



Test - Step 3

- Return to screen to perform calibration test sequence
- Review and record results
- Easily copy and save data in your calibration data base



Portable, Battery-Powered or AC Operation

- Minimum eight (8) hours of operation on full battery charge
- Rugged carrying case with compact size - great for cramped and remote locations

Meet Our Entire Pharmaceutical Family...

- **Model 264 Pressure Transducer**
  - ±0.25% and ±0.40% FS Accuracies
  - Excellent Price/Performance Ratio
  - 3 Year Unconditional Warranty

- **Model 267 Laboratory Grade Pressure Transducer**
  - ±0.25% and ±0.40% FS Accuracies
  - Optional LCD for Critical Applications
  - Static Probe for Room Pressure Applications and Direct Duct Mount

- **Model 269 High Performance Pressure Transducer**

NEW

  - ±0.15% and ±0.35% FS Terminal-Based Non-Linearity
  - Removable Process Head and Detachable Terminal Block for In-Situ Calibration
  - Tamperproof Operation via "Security Key" with Push Button "Snap-Back" Zero and Span Adjustment
  - Base or Din Rail Mount Design - Minimizing Installation Time
  - Calibration Ready by a Electro-Pneumatic Interface Enabling Multi-Featured Automatic Calibration with Model 869

Also Available from Setra

A broad line of counting scales and precision balances. Accurate, reliable performance for every budget. Call or email for details, or order online at www.setrascalesonline.com

Ordering Information

Code all blocks in table.

Example: Part No. 86910R5WD015WDPN for a 869 Calibrator, 0 to 0.5 in.WC (Range One) to 0 to 15 in.WC (Range Two), PDA Included, with a Standard Pharmaceutical User Interface.

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Model
8691 = 869

Range - One

Inches W.C.	
0R5WD	= 0 to 0.5 in.WC
001WD	= 0 to 1 in.WC
005WD	= 0 to 5 in.WC
2R5WD	= 0 to 2.5 in.WC
015WD	= 0 to 15 in.WC
R25WB	= ±0.25 in.WC
0R5WB	= ±0.5 in.WC
001WB	= ±1 in.WC
2R5WB	= ±2.5 in.WC
005WB	= ±5 in.WC
015WB	= ±15 in.WC

Range - Two

Pascal	
050LB	= ±50 Pa
100LD	= 0 to 100 Pa
100LB	= ±100 Pa
250LD	= 0 to 250 Pa
250LB	= ±250 Pa
500LD	= 0 to 500 Pa
500LB	= ±500 Pa
10CLD	= 0 to 1000 Pa
10CLB	= ±1000 Pa
35CLD	= 0 to 3500 Pa
35CLB	= ±3500 Pa

PDA
P = Includes PDA

User Interface
N = Standard User Interface
***P =** 269 Auto-Cal System

*Consult factory for details and availability

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