Micro-Cal™ Model 869 & Expert System



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

In-Situ Calibration

Calibrate installed tranducers



NEW 869 Expert System



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
- NASA patented 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 disturbances
- True zero pressure generation high and low pressure ports shorted to produce stable, noise-free zero pressure input - outperforms competitive active zero pressure systems

Calibration Capabilities

- **■** Analog Pressure Transducers
- **■** Pressure Switches
- Analog Dial Gauges
- Setra Digital Auto-Cal[™] Products 269 & RPM



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
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 $% \left(1\right) =\left(1\right) \left(1\right)$

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

General Specifications

Pressure Units (Selectable) in. W.C., Pa, kPa, mbar, cm W.C.
Warmup 1 Hour
Reading Rate20 readings/second, typical
Gravity/Orientationnegligible
Shock and Vibration5g, maximum
CommunicationsRS 232
Display 3.5" transflective type TFT color, QVGA, 64-k color
Keypad pocket PC touch pad
Size 11" x 14" x 6" (27.9 cm x 35.6cm x 15.2 cm)
Weight
Pressure Media clean, dry. non-corrosive gases
Power 120/240 AC, 50/60Hz, battery Li Ion - 8 hours operation,
integrated charger
Pressure Transducer Interface

Pressure Fittings.	barbed, plug-in o-ring quick connects
Electrical	banana plug jacks
Voltage Meter	±0.005% FS0 at ±10.5 VDC
Current Meter	±0.005% FS0 at 4-20mA
Excitation	24VDC nominal for 4-20 mA output,
	adjustable 5 to 24 VDC for voltage output

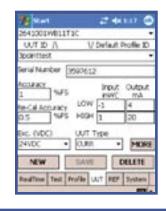
Key Features

- Easy step-by-step user interface process
- Designed with built-in leak test function
- Provides accuracy and stability plots
- Handles multiple engineering units
- Both pressure generation and monitoring modes to verify system performance

Simple Pocket PC User Interface

Step 1 UUT (Unit Under Test) Setup

- Select transducer profile
- Select accuracy specification
- Select output (VDC or mA)

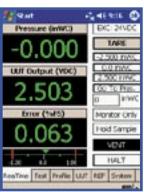


Calibration management database

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

Step 2 Real Time

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



Step 3 Test Unit

- Return to screen to perform calibration test sequence
- Review and record results
- Copy and save data into your calibration database



Portability & Versatility

- AC or battery operation eight hours of operation on full battery
- Rugged, compact carrying case great for cramped and remote locations
- Calibrate difficult-to-reach devices in-situ (ceilings, ducts, etc.) with electro-pneumatic harness assembly for analog tranducers, 2, 3 and 4-wire, configurable length



869 Expert System

For even greater savings and security, upgrade to the 869 'Expert' Automatic Calibration System*

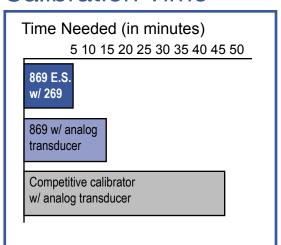
Features

- Fully Automated, Hands-Off Calibration reduces calibration times by 2/3 or more. No tube cutting or wire removal is required.
- Easy-to-Use, Smart Communication Software provides transducer detection and automated calibration with Setra's digital transducers and room pressure monitors.
- Electropneumatic Interface Cable (EPIC) allows the 869 to simultaneously pressurize a 269 or SRPM under test and automatically transmit ID and calibration data between the two units.
- Two EPIC Cable Lengths Offered: 6ft (standard) & 12ft (optional), providing easy access to units located in remote, difficult to access areas.
- Easily Upgrade Original 869 simply send in your unit and it will be returned with the installed Expert System. This is especially convenient if performed when your 869 is in the factory for it's annual recertification.



Expert System: EPIC, SRPM, 269 & 869

Calibration Time

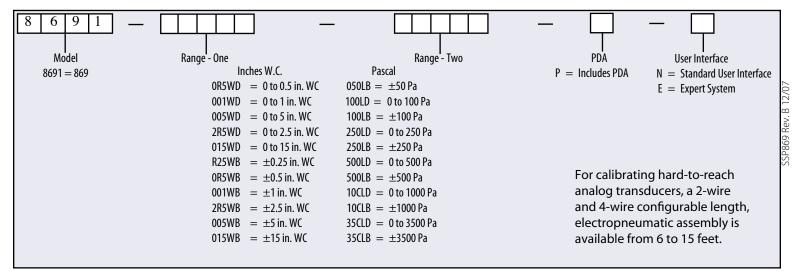


Smart, Secure, Cost Effective Calibration

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.





^{*} Expert System can only be used with Setra 269 and SRPM products.