

## MODEL K9907C

# MEDIUM PRESSURE CALIBRATION WORKSTATION

- Assures accurate, traceable calibrations
- Turnkey system includes all necessary components
- Setup tests, acquire data, save results, and print reports quickly with precision and automation
- Define pass/fail criteria for each test and automatically recall them from the internal database
- Prints customizable ISO compliant certificates
- Automates calibration procedures

## TYPICAL APPLICATIONS

- Impact ballistics
- Body armor & crash survival research
- Turbine engine monitoring
- Dynamic combustion measurements
- Research laboratories

## STEP PRESSURE TO 1000 PSI

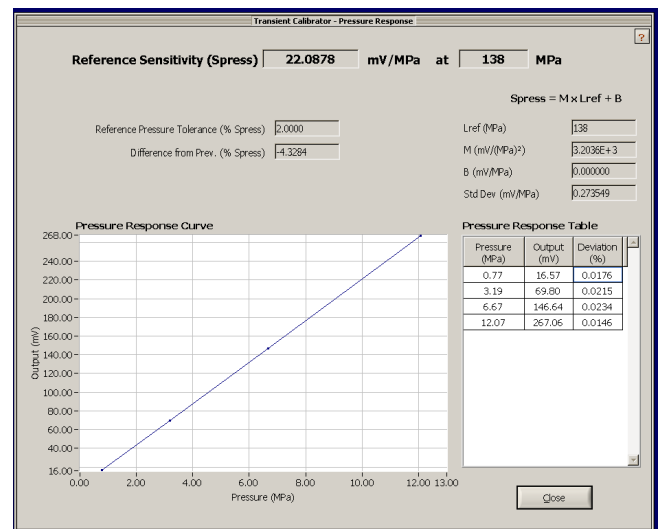
The Model K9907C Medium Pressure Calibration Workstation performs pressure calibrations on a wide range of dynamic pressure sensors. The Model K9907C is a turn-key system that includes the Aronson pressure step actuator, data acquisition hardware, Windows PC, and software to automate test setup, data acquisition, data archiving, and report generation. The K9907C provides step pressure pulses up to 1000 psi (6.9 MPa) to the sensor under test. The K9907C calculates sensitivity, linearity, and discharge time constant.

K9907C is based on two product lines with a rich heritage of calibration experience. The pressure actuator and measurement equipment have been in use for decades at PCB Piezotronics, while the data acquisition and automation software is based on the The Modal Shop's 9155 Series of Vibration Sensor Calibration Workstations. The K9907C merges these two product lines to form a standalone pressure calibration system with mature measurement capability. In addition, the K9907C01 is offered as a retrofit package to existing customer owned PCB 907 Series calibration systems. The 9155D-907 adds pressure calibration capability to existing 9155D Accelerometer Calibration Workstations.

# AUTOMATED PRESSURE CALIBRATION SOFTWARE

By combining PCB's factory calibration hardware with The Modal Shop's system software and expertise, pressure calibration systems meet the needs of the most discerning user. These turnkey systems reproduce the factory calibration techniques of pressure sensors for customers with the added advantage of a single point for product support and Total Customer Satisfaction. Test activity and results are shown in the easy-to-use software:

- Displayed pressure response data allows technician to view and check for anomalies
- Software automatically computes sensitivity values
- Pressure Response table provides a snapshot of results including % Deviation



## Transient Calibrator - Pressure Response

K9907C calibrates at predetermined levels and calculates linearity over the testing range

| SPECIFICATIONS                         |   |                |
|--|---|----------------|
| Performance                            |   |                |
| Pressure Step Amplitude                | 100 to 1000 psi   | 0.7 to 6.9 MPa |
| Step Rise Time                         | 35 $\mu$ s  |                |
| Maximum Reservoir Pressure             | $\leq 2000$ psi   | 13.8 MPa       |
| Working Medium                         | Non-corrosive gas (i.e. helium)   |                |
| Maximum Sensor Diameter                | 1 in  | 25.4 mm        |
| Locking Mechanism                      | Keeps poppet valve open or closed   |                |
| Trigger Signal Generator               | Impacts sensor to trigger recording device  |                |
| Material                               | Stainless steel and aluminum  |                |
| Gas Pressure Controls                  | (3) each type 316L manual valves  |                |
| Gas Access Ports                       | 12 Swagelok®-type AN connectors; 1 for gas pressure & vacuum sources; 1 for external static reference gages |                |
| Size Diameter x Height (actuator only) | 12 x 21 in  | 305 x 533 mm   |
| Weight (actuator only)                 | 75 lb   | 34 kg          |

