

Dynamic Calibration of Pressure Transducer for Interior Ballistic Analysis

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I. Introduction

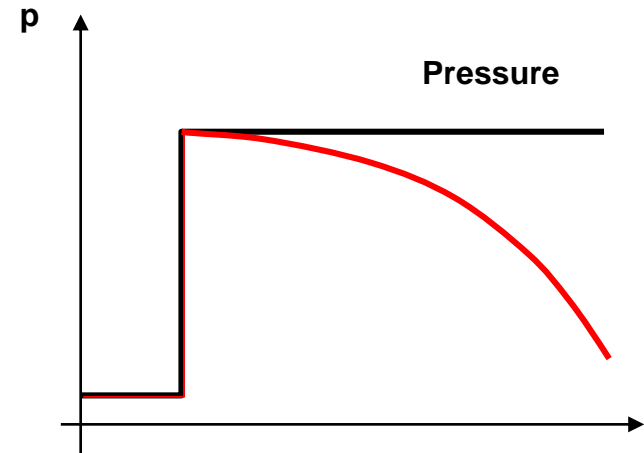
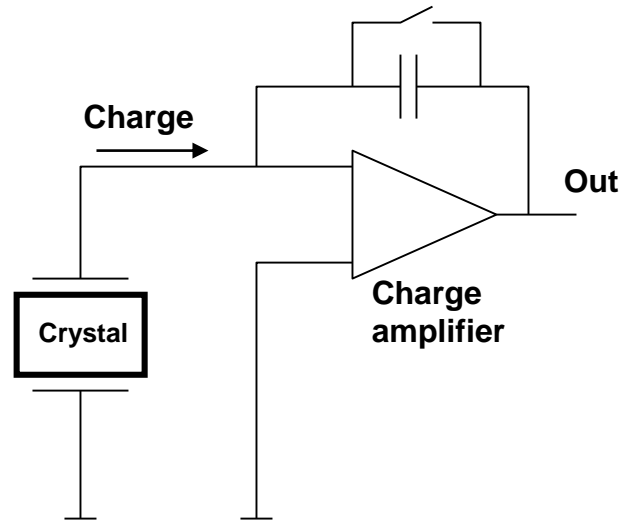
II. Calibrator

III. Conclusion



I. Introduction

- Ultra high pressure Sensors
 - Measuring range : more then 100,000 psi

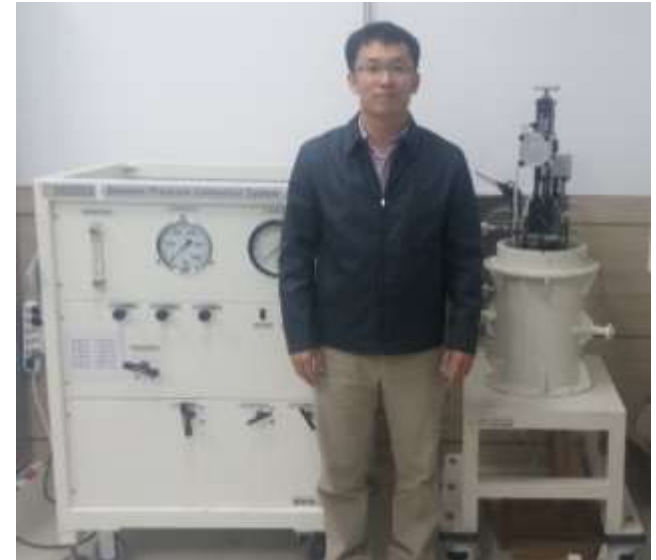
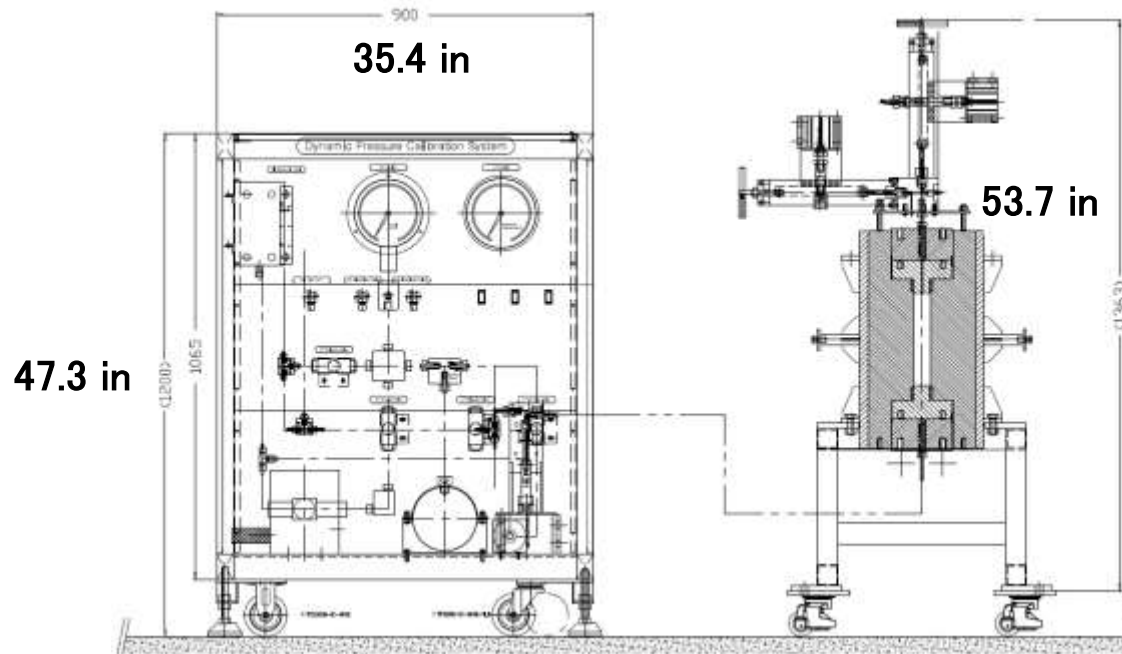


< Piezoelectric (Crystal) >



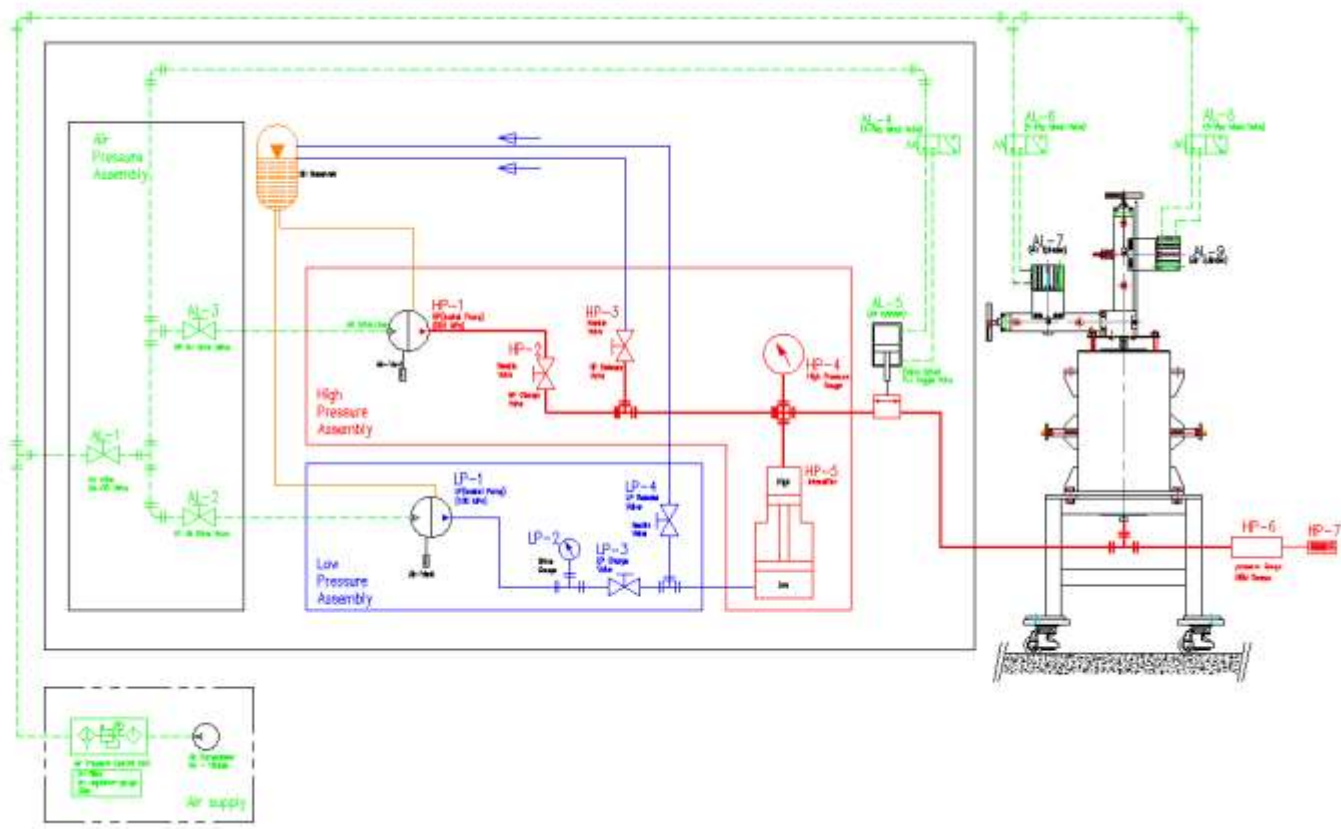
II. Calibrator

➤ Calibrator Appearance



II. Calibrator

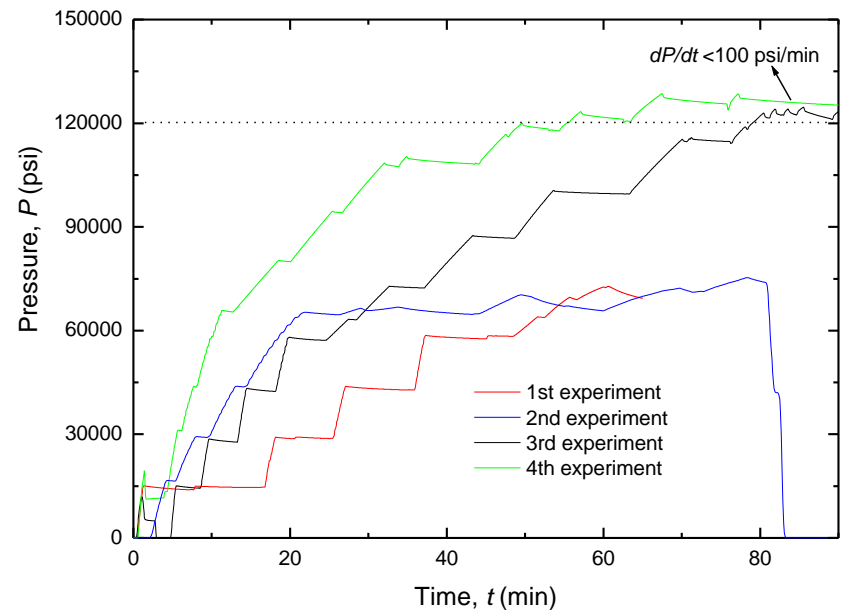
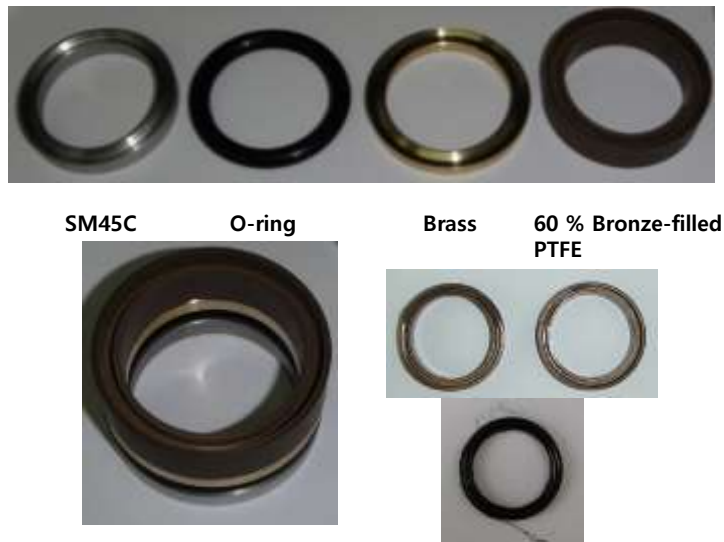
➤ Calibrator Block Diagram



II. Calibrator

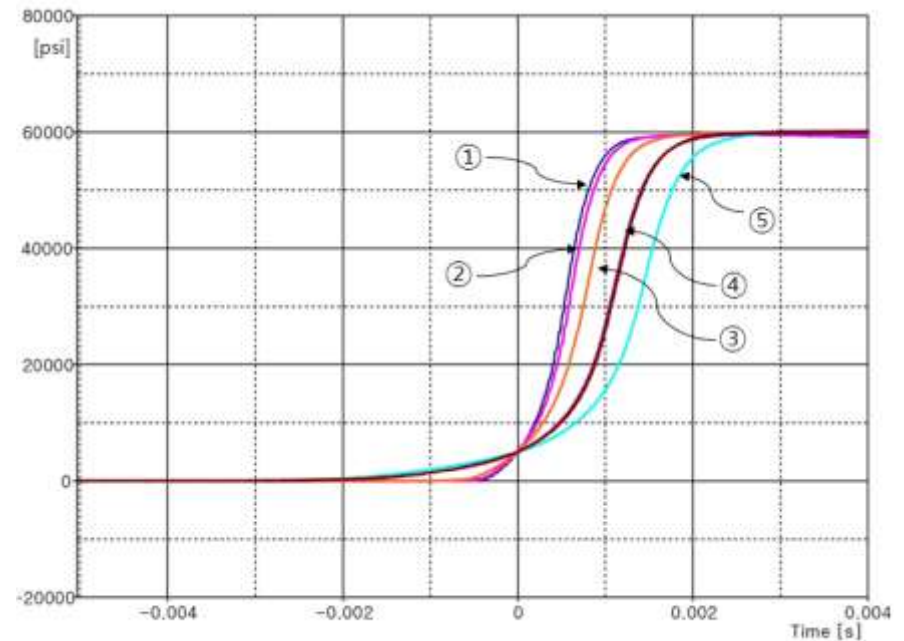
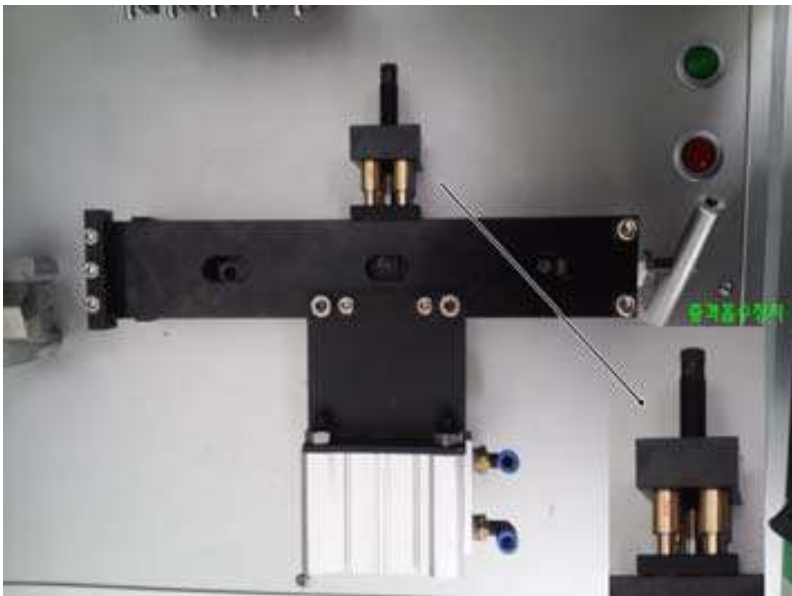
➤ Sealing method

- Sealing characteristics according to the 40/60 % Bronze + PTFE mixing ratio



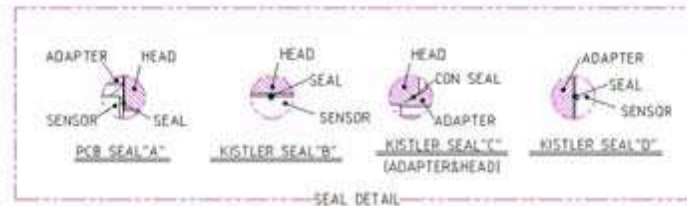
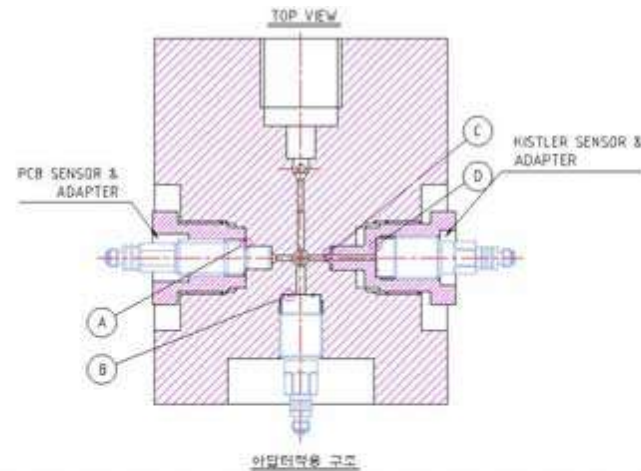
II. Calibrator

➤ Rising time conversion device



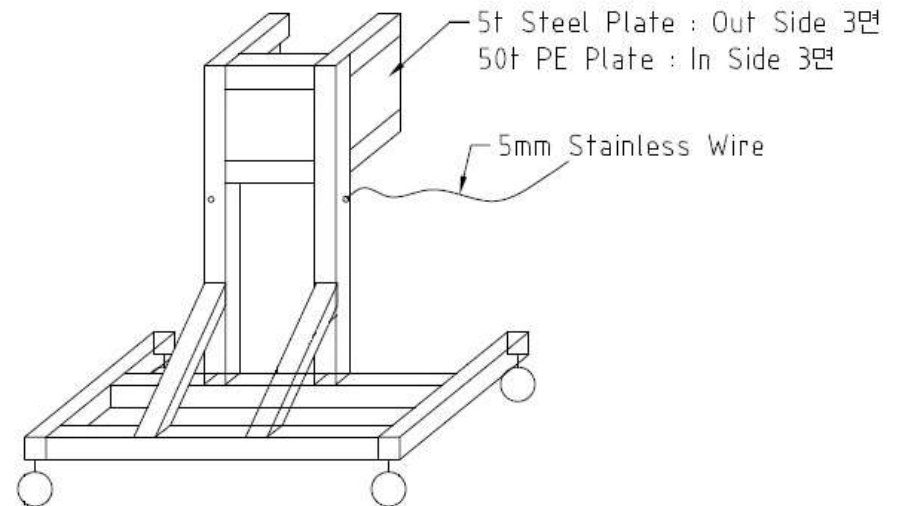
II. Calibrator

➤ Adapter for Sensor



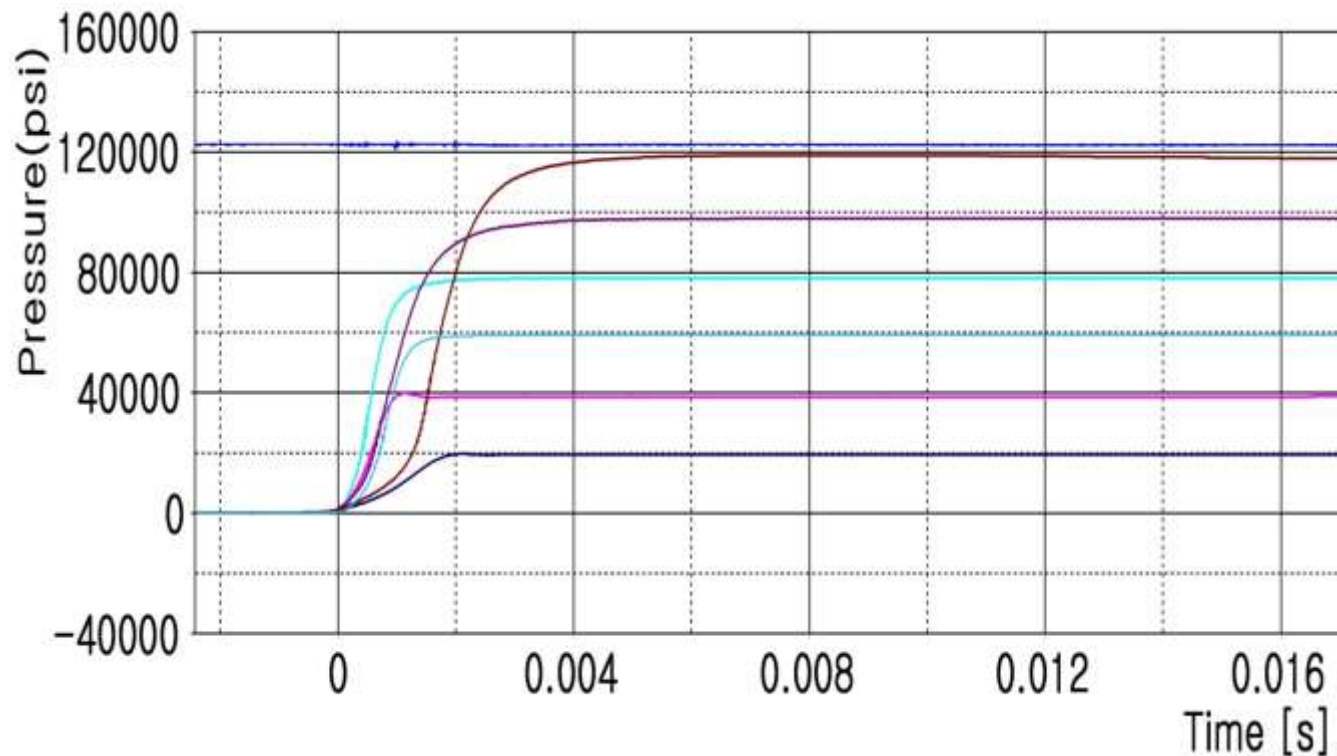
II. Calibrator

➤ Safety Fens



II. Calibrator

➤ Test Result



III. Conclusion

- ❖ **Until 60,000psi can be calibrated without Vent
→ Reduced calibration time**
- ❖ **Various sensors can be calibrated using an adapter**
- ❖ **Designed to be operated in 120,000psi based on the results of various experiments**





Thank you.

