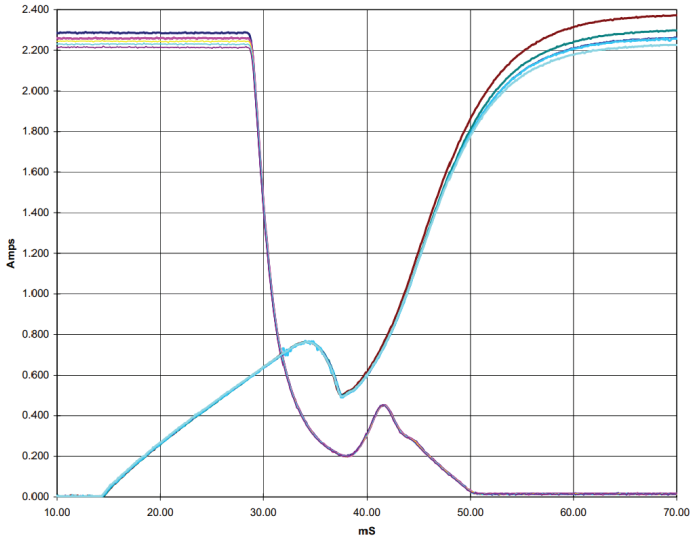
Solenoid Valve Health Monitoring System (SVHMS)



- Tracks the electrical and mechanical health of solenoid valves
- Proprietary algorithms evaluate recorded current signatures
- Trends valve performance
- Predicts valve failures prior to occurrence
- Allows for informed preventative maintenance

Patented NASA technology developed for use with the **Space Shuttle Program**

- Further refined for commercial markets through exclusive partnership with Graftel LLC.
- Technology may be utilized in any application that employs solenoid valves.

The SVHMS learns what a good signature looks like from good solenoid valves in specific applications. When future signatures are collected, they are compared against the archived good signatures and the current valve's condition can be determined and reported based upon its learned behavior and proprietary algorithms.

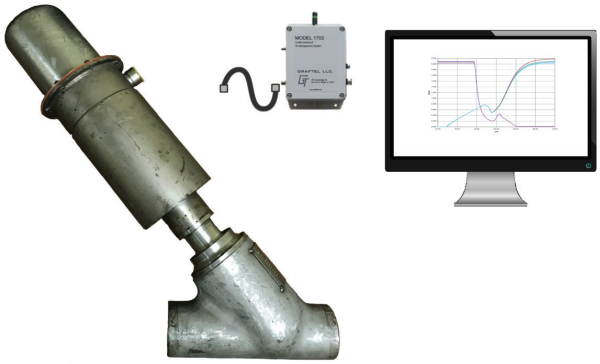
870 Cambridge Dr., Elk Grove Village, IL 60007, USA
+1 (847) 364-0163 sales@gtwlabs.com www.gtwlabs.com

THREE DIFFERENT MONITORING OPTIONS

HANDHELD RECORDING

- Transducer is non-intrusively attached to the solenoid valve
- Valve is stroked, and current trace is recorded by the mobile recorder
- Transducer is removed from the valve
- Recorded data is later downloaded to and analyzed by a PC using GTW analysis software and proprietary algorithms

LOCAL RECORDING



- Transducer and Field Recorder are permanently attached to the solenoid valve
- Current traces w/timestamps are recorded every time the valve strokes
- Periodically, site personnel can locally download stored data from the field recorder's SD card
- Recorded data is later downloaded to and analyzed by a PC using GTW analysis software and proprietary algorithms

REMOTE RECORDING

- Transducer & Recorder are permanently attached to the solenoid valve
- Current traces w/timestamps are recorded in the Recorder every time the valve strokes
- The Recorder has either a wired or a Bluetooth connection to the nearby Gateway Module
- Gateway Module is connected to the plant LAN or to the GTW IIOT cloud server via internet.
- Data may be analyzed real time or in blocks on a site PC or in the GTW IIOT cloud
- Adverse trends, alarm conditions can be automatically flagged, and reports e-mailed to designated parties