Welcome to Issue #84

G'day (hello in Australian) from Cincinnati, Ohio again this month. The tips of the leaves on the trees are starting to change color and nights are getting cooler. It's great sleeping weather but your friends at The Modal Shop are up early helping customers with their dynamic sensor and calibration needs. We've had another record order month across our range of calibration products, from **portable vibration calibrators** to **laboratory workstations for vibration**, **pressure** and even **laser primary calibration**. We work very hard on authoring papers, participating in standards committees, creating fun/informative newsletters and conducting our daily customer application support. We appreciate both the trust we've earned, and the positive feedback we receive from the dynamic calibration market.

Join Our Mailing List!

View our profile on LinkedIn

Follow us on twitter

Like us on Facebook

Tip of the Month: ISO 17025 Proficiency Testing

Moving into Quarter 4 of this year, remember that any ISO 17025-accredited providers should have already conducted annual **proficiency testing**, or should be scheduling it soon.

Technical Exchanges

TMS Dynamic Sensors & Calibration Seminar
Free half-day seminar on calibration of vibration, sound/pressure and shock by Stephen Bill & The Modal Shop, Inc.
October 1
Washington, D.C.

NCSLI Midwestern US Regional Meeting

Know Your Standard: ISO 16063

In the past few months, we have written a series of articles looking at several common misinterpretations of the ISO 16063-21 standard stating methods for the calibration of vibration and shock transducers.


INTERNATIONAL STANDARD ISO 16063-21

Methods for the calibration of vibration and shock transducers —
Part 21:
Vibration calibration by comparison to a reference transducer

Guidelines Within Standards: Thou Shall, or Thou Should Think...?

Uncertain About Uncertainty? Certainly!

Potentially Confusing Uncertainty Contributors

For any reader interested in expanding and calculating their own back-to-back accelerometer calibration uncertainty budget, ISO 16063-21 can provide an excellent reference point for equations and example calculations of uncertainty contributors. Beyond back-to-back vibration, the ISO 16063 group contains...

Click to read full article.
modalshop.com/calibration.asp?ID=1009

University of Buffalo Calibrates Seismic Sensors for Earthquake Simulation

By Kacey King Redmond, Marketing Communications

The University of Buffalo (UB) supports both

"Dynamic Pressure - Sensor Basics and Calibration Theory" by Patrick Timmons, The Modal Shop, Inc.
October 16
Kettering, OH

SAVE (Formerly SAVIAC) Shock & Vibration Exchange
October 26-30
Reston, VA

AutoTest Expo
October 28-30
Novi, MI

Quick Links

PTB
NIST
ISO TC 108 - Mechanical vibration, shock and condition monitoring
ISO TC 108/SC 3 - Use and calibration of vibration and shock measuring instruments
ISO TC 108/SC 6 - Vibration and shock generating systems
SAVE (Formerly SAVIAC)
Vibration Institute
Equipment Reliability Institute (ERI)
TMS Video Vault
Learn More Calibration

Previous Newsletters

Dynamic Sensors & Calibration #83
Potentially Confusing Uncertainty Contributors; Pressure Calibration Techniques

Dynamic Sensors & Calibration #82
Uncertain About Uncertainty? Certainly!; How to Calibrate Awkwardly-Shaped Accelerometers

Select Newsletter Articles by Topic

Function and Structure of Accelerometers

Similarities Between Charge and ICP Operation

Selecting Accelerometers for Mechanical Shock

Master List of Topics (T.O.C.)

PCB Group Companies

The Modal Shop Systems & Service Website
PCB Piezotronics Sensor Website
IMI Monitoring Website
Larson Davis Acoustics Website
PCB Load & Torque Website

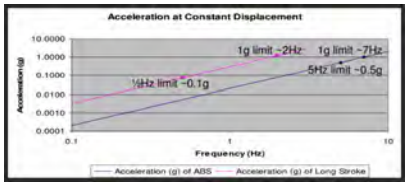
Watch the Earthquake Simulation Video

research and commercial projects focused on structural engineering. UB purchased a low-frequency shaker and was trying to develop its own control algorithms and report processing for low-frequency calibration of seismic sensors.

UB gets most of its commercial work by word-of-mouth. Its main work is with customers who are seeking seismic certification ...

Click to read full article.
modalshop.com/calibration.asp?ID=1010

Blast from the Past: Improved Low-Frequency Accelerometer Calibration



Discussion about accelerometer calibration often refers primarily to the measurement of voltage sensitivity across a frequency range. The most common way to calibrate accelerometer sensitivity is by comparison to a reference transducer, generally another accelerometer designed to have stable low noise sensitivity in the conditions of calibration. Comparison methods are performed by back-to-back measurements, typically as a stepped sinusoid across an appropriate frequency range. The Sensor Under Test (SUT) is mounted...

Click to read full paper.

Thanks for joining us for another issue of "Dynamic Sensors & Calibration Tips." As always, please speak up and **let us know what you like**. We appreciate all feedback: positive, critical or otherwise. Take care!

Sincerely,

Michael J. Lally
The Modal Shop, Inc.
A PCB Group Company
mike.lally@modalshop.com

SimuTech FEA Website