


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.

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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

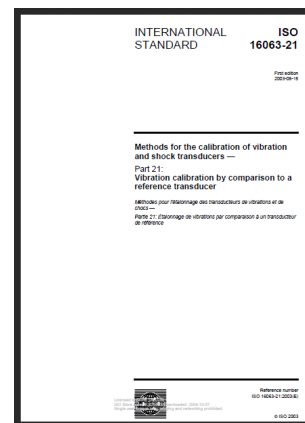
[TMS Dynamic Sensors & Calibration Seminar](#)

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.



[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](#)

and report processing for low-frequency calibration of seismic sensors.

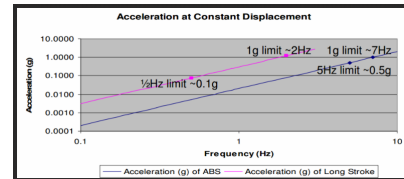
UB gets most of its commercial work by word-of-mouth. Its main work is with customers who are seeking seismic certification ...

[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,

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[SimuTech FEA Website](#)

