

sensor & calibration tips



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Your one-stop sound & vibration shop

Greetings,

Welcome to issue #29-

Welcome to our third year of information and education for structural vibration and dynamic calibration professionals. Our goal is to provide a few "bite size" pieces of information each month to keep you up on the latest in the industry. Please have a look (like thousands of your industry colleagues do each month!), and share it with a co-worker if you see something from which they could benefit. Follow the archive links below to where you'll find all the back issues with their wealth of information.

[Join Our Mailing List!](#)

Tip of the Month

Myth: Charge mode transducers have superior performance characteristics and are better suited for use as a reference standard.

Busted! For decades, ICP accelerometers have had superior noise susceptibility and signal impedance, and are, in fact, better suited for reference standard applications, as well as most general purpose uses. Currently, charge mode transducers are required primarily for making measurements at elevated temperatures.

Quick Links

[NCSL](#)

[IMEKO](#)

[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

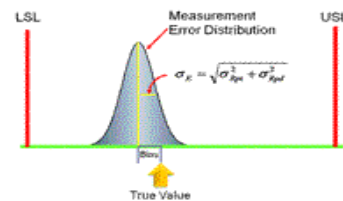
[IMAC - Jacksonville, FL \(February 1-4\)](#)

[SAVIAC
Vibration Institute](#)

Tutorial on Measurement Uncertainty

Last week I came across a very nice article by Steven Ouellette on measurement uncertainty in [Quality Digest's online magazine](#).

Mr. Ouellette is the founder of six-sigma-online.com, president of [The ROI Alliance LLC](#), an instructor at the [University of Colorado Engineering Management Program](#) and director of the [Center of Statistical Solutions](#). He does an excellent job describing the topic and even provides a downloadable spreadsheet (.xls) to help with uncertainty calculations.



[Click to read more about measurement uncertainty](#)

<http://www.qualitydigest.com/inside/quality-insider-column/letting-little-secret.html>

Shock & Vibration Support for Discovery Channel's Mythbusters



The Modal Shop and PCB Piezotronics, recently supplied The Discovery Channel's popular science series [Mythbusters](#) with vibration test equipment for the Dumpster Diving

episode. In this episode, the show hosts Jamie and Adam instrument Buster the Dummy with PCB model 356A02 triaxial ICP® piezoelectric accelerometers to measure impact shock levels induced by a "typical" 4 story jump into a dumpster filled with trash, determine the probability for survival and bust the myth commonly seen in getaway scenes of action movies where the action hero hops out after the fall and escapes from the villain. Follow this link for some screen shots of the [PCB triax in action...](#)

[The Modal Shop website](#)
[PCB Piezotronics website](#)
[IMI website](#)

Newsletter Archive

[sensor & cal tips #26](#) - high temp vibration and hammer calibration

[sensor & cal tips #27](#) - Shock vibration and calibration for Aerospace and Defense, ICPR

[sensor & cal tips #28](#) - Details on ICPR and Tools for composite damage detection

[Table of Contents](#) - all the back issues



[Click here to view the Dumpster Diving Mythbusters episode](#)
<http://www.modalshop.com/Monitoring.asp?ID=318>

The Modal Shop is celebrating its 20th Anniversary in 2010. We hope that you've enjoyed our newsletter again this month, as well as its educational content over the last few years. No where like the sensing calibration fields are certainty and reliability more important. We're here to serve you with all your dynamic sensor and calibration needs.

Sincerely,

A handwritten signature in black ink that reads "Michael J. Lally".

Michael J. Lally
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A PCB Group Company
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[Forward email](#)