sensor & calibration tips

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Greetings!

Welcome to issue #23-

If you are new to our newsletter, please enjoy this short communication, share it with a colleague and have a look at the archive links below where you'll find all the back issues with their wealth of information. We're glad to have you on board!

Join Our Mailing List!

Tip of the Month

Validate low frequency performance

For ICP® sensors, the low frequency performance is dominated by the unit's discharge time constant. A quick check of this specification via a flip or drop test gives a good indication of proper low frequency performance by the transducer, particularly important since many calibration response curves start at 10 Hz given cal cycle time and shaker stroke length.

Quick Links

NCSL
IMEKO
NIST
PTB

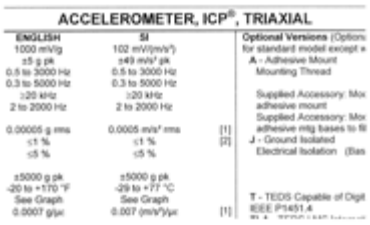
NCSL - San Antonio, TX (July 26-30)
NI Week - Austin, TX (August 4-6)
Inter-Noise - Ottawa, Canada (August 23-26)
Quality Expo - Rosemont, IL (September 22-24)

Vibration Institute

The Modal Shop website
PCB Piezotronics website
IMI website

Newsletter Archive

Decoding the Specification Sheet...


ACCELEROMETER, ICP®, TRIAXIAL

ENGLISH	SI	Optional Versions (Option
1000 mV/g	102 mV/(m/s²)	for standard model except a
±5 g pk	±49 m/s² pk	A - Adhesive Mount
0.5 to 3000 Hz	0.5 to 3000 Hz	Mounting Thread
0.3 to 5000 Hz	0.3 to 5000 Hz	
±20 kHz	±20 kHz	Supplied Accessory: Mo
2 to 2000 Hz	2 to 2000 Hz	adhesive mount
		Supplied Accessory: Mo
0.00005 g rms	0.0005 m/s² rms [1]	adhesive mtg bases to fit
≤1 %	≤1 % [2]	J - Ground Isolated
≤5 %	≤5 %	Electrical Isolation (Bas
±5000 g pk	±5000 g pk	
-20 to +170 °F	-29 to +77 °C	T - TEDS Capable of Digit
See Graph	See Graph	IEEE P1451.4
0.0007 g/με	0.007 (m/s²)/με [1]	

Remember the famous line from Romeo & Juliet, "What's in a name? That which we call a rose by any other name would smell as sweet..." How about when it comes to accelerometers... is it the same? Is a rose still a rose still a rose? Well... as you might imagine... there is a great deal of variance. A survey on specification sheets for a similar accelerometer from 5 different sensor manufacturers indicates a disparity of what vendors consider as "standard" specifications. 5 out of 5 Manufacturers listed...

Click to read more about specification sheets(http://www.modalshop.com/test_calibration.asp?ID=273)

Under Control?

As a follow up to last month's article on Calibration Proficiency Deficiency , this month we continue to examine the most common deficiencies in ISO17025 compliance. Cutting right to the chase, this month's deficiency is the 2nd most common - Infractions in ISO17025 Section 5.5, Equipment. The nature of calibration requires using the proper equipment with known performance, traceability and reliable operation. While this is clearly core to the accurate operation of calibration, ironically, the compliance violations in this area are very common.

Read more about audit assessment

sensor & cal tips #19 - Linearity and the small world

sensor & cal tips #20 - Low frequency calibration; Cable considerations

sensor & cal tips #21 - ICP Triaxial Accelerometers Aid Vehicle Field Diagnostics; New Transverse Methods of Calibration

sensor & cal tips #22 - Proficieny Deficiency and TEDS

Archived sensor & cal tips - all the back issues

challenges(http://www.modalshop.com/test_calibration.asp?ID=275)

We appreciate your interest and are glad to be providing you information on a regular basis to help with your dynamic testing and calibration needs. If you have any questions you would like answered or have a topic you would like to see covered, please contact us and we'll be glad to help out.

Sincerely,

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

Forward email