

# ~ Calibration Certificate ~

Per ISO 16063-21

Model Number: 393C

Serial Number: 22591

Description: ICP® Accelerometer

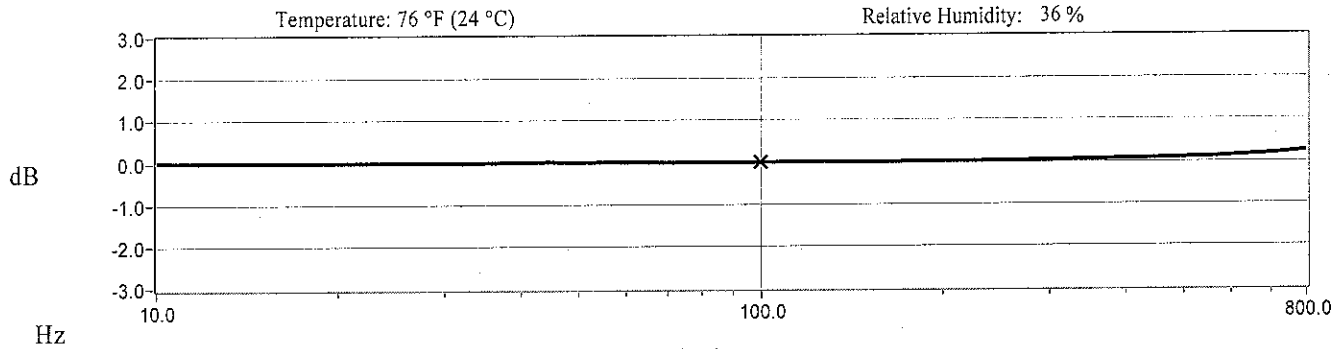
Method: Back-to-Back Comparison Calibration

Manufacturer: PCB

### Calibration Data

Sensitivity @ 100.0 Hz	997 mV/g	Output Bias	3.8 VDC
	(101.7 mV/m/s <sup>2</sup> )	Transverse Sensitivity	2.6 %
Resonant Frequency	6043 Hz		

### Sensitivity Plot



### Data Points

Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)
10.0	0.0	300.0	0.3
15.0	-0.1	500.0	0.9
30.0	-0.0	800.0	2.9
50.0	-0.0		
REF. FREQ.	0.0		

Mounting Surface: Stainless Steel w/Silicone Grease Coating    Fastener: Stud Mount  
 Acceleration Level (rms)<sup>1</sup>: 1.00 g (9.81 m/s<sup>2</sup>)

Fixture Orientation: Vertical

<sup>1</sup>The acceleration level may be limited by shaker displacement at low frequencies. If the listed level cannot be obtained, the calibration system uses the following formula to set the vibration amplitude: Acceleration Level (g) = 0.010 x (freq).  
<sup>2</sup>The gravitational constant used for calculations by the calibration system is; 1 g = 9.80665 m/s<sup>2</sup>.

### Condition of Unit

As Found: n/a

As Left: New Unit, In Tolerance

### Notes

1. Calibration is NIST Traceable thru Project 822/274086 and PTB Traceable thru Project 1060.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Calibration is performed in compliance with ISO 9001, ISO 10012-1, ANSI/NCSS Z540-1-1994 and ISO 17025.
4. See Manufacturer's Specification Sheet for a detailed listing of performance specifications.
5. Measurement uncertainty (95% confidence level with coverage factor of 2) for frequency ranges tested during calibration are as follows: 5-9 Hz; +/- 2.0%, 10-99 Hz; +/- 1.5%, 100-1999 Hz; +/- 1.0%, 2-10 kHz; +/- 2.5%.

Technician: Thomas Witnauer      Date: 04/26/07



CALIBRATION CERT #1862.01



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# ~ Calibration Certificate - Phase ~

Per ISO 16063-21

Model Number: 393C

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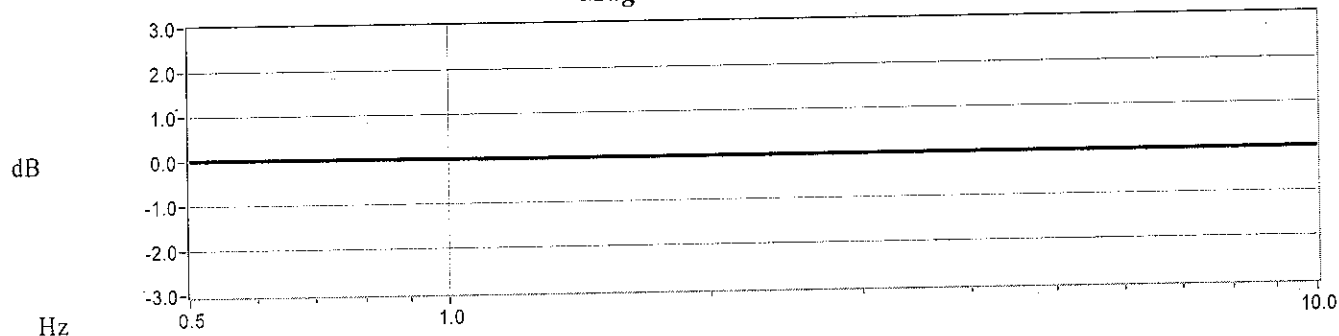
Method: Back-to-Back Comparison Calibration

Manufacturer: PCB

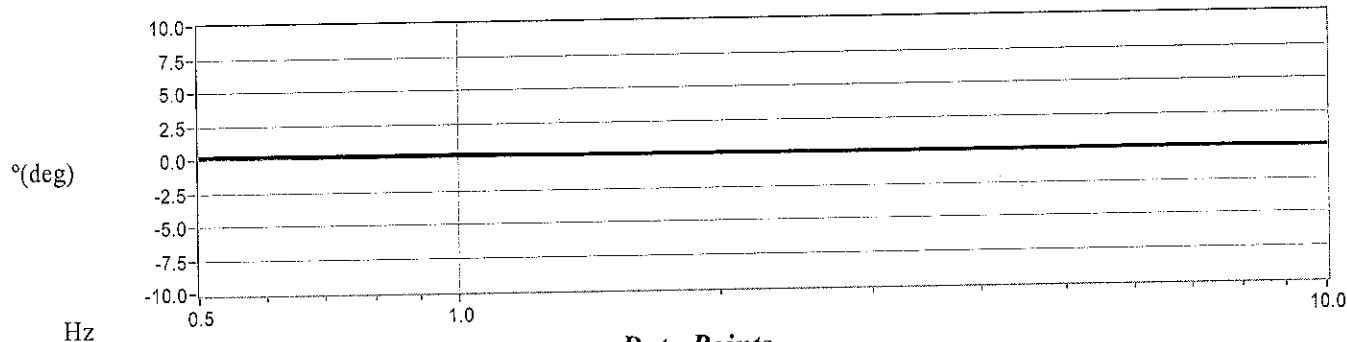
### Calibration Data

Sensitivity @ 100.0 Hz      997    mV/g      (101.7    mV/m/s<sup>2</sup>)

### Magnitude Plot



### Phase Plot



### Data Points

Frequency (Hz)	Deviation (%)	Phase (°)
0.5	0.2	0.2
1.0	0.1	0.2
2.0	-0.1	0.1
5.0	-0.0	0.0
7.0	-0.0	0.1
10.0	0.0	0.0

### Notes

1. Calibration is traceable to one or more of the following report numbers; PTB 5399, PTB 5400 and NIST 822/271196.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Calibration is performed in compliance with ISO 9001, ISO 10012-1, ANSI/NCSL Z540-1-1994 and ISO 17025.
4. See Manufacturer's Specification Sheet for a detailed listing of performance specifications.
5. Measurement uncertainty (95% confidence level with coverage factor of 2) for frequency ranges tested during calibration are as follows: 0.5-0.99 Hz; +/- 1.8%, 1-30 Hz; +/- 1.0%, 30.01-199 Hz; +/- 1.5%, 200-1 kHz; +/- 3.0%.

Technician: Thomas Witnauer

Date: 04/26/07



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