

Calibration Certificate *SLA***Accelerometer System**TYPE ~~8002K~~

Accelerometer Model 8076K

SN C106761

Amplifier/Coupler Model 5020

SN C34162

Range \pm 250 g*Sensitivity at 100 Hz, 10 g*rms 10.00 mV/g*
at Hz, g*rms

Mounted Resonant Frequency 37.3 kHz

159.15

Transverse Sensitivity 2.0 %

*.010498*Mounting Torque 24 ± 2 lbf-in (2.7 ± 0.2 Nm)

All measurements at ambient conditions of 21°C (70°F) and 50% R.H.

*g = 9.807 m/s²✓ Frequency Response *159.15*

Frequency (Hz)	20	50	100	200	500	1k	2k	5k	8k	10k
Deviation (%)	-0.9	-0.1	+0.0	-0.1	-0.4	-0.1	+0.1	+0.4	-0.3	-0.7

This accelerometer was calibrated using a back-to-back comparison technique against a Kistler Working Standard. Kistler Working Standards are periodically calibrated against a Kistler Reference Standard System

which in turn is periodically recertified by the National Institute of Standards and Technology. The calibration of all Kistler acceptance test instrumentation is in conformance with MIL-STD-45662A.

NIST Traceability

Working Standard

Reference Standard

Accelerometer

Model 8002K

SN C28623

Model 808K1

SN 1263

Charge Amplifier

Model 5020

SN C31242

Model 561T

SN 251

NIST Test Report Number 822/250337

AUG 15 1996

By Mark Thomas

Date 08-15-96

Certificate of Conformance

Crossbow

calibration date

8/19/98

Calibration Data: Room Temperature

Zero-G Voltage	3.200
Sensitivity	0.011

Part Number	CXL100HF1Z
Serial Number	9711149

Options: AC Coupled, min freq: 0
Hz

Wiring Diagram:

Color	Pin	Function
Red	1	5 Vdc
Black	2	Ground
Green	5	Sensor

Thank you for choosing a Crossbow sensor. This worksheet is designed to help you get started. Refer to the product data sheet for more complete information.

Definitions

Zero-G Voltage : This number is the output voltage of the sensor with zero applied acceleration measured at the factory on the day of the calibration.

Sensitivity : This number is the sensor's sensitivity in Volts per G. One G is approximately 9.8 meters per second squared.

Calibration

The simplest method of field calibration is to record the sensor's output voltage when exposed to the Earth's gravitational field. Expose the sensor to +1G to obtain a more positive reading than the zero-G voltage. Expose the sensor to -1G to obtain a more negative reading than the zero-G voltage. The offset is defined as the average of the +1G and -1G voltages. The sensitivity in Volts per G is one-half the difference of the +1G and -1G voltages. Please note that this technique only works on DC coupled sensors. If your sensor is AC coupled, a shaker is required for proper calibration.

Technical Support

For further technical assistance, contact Crossbow Technology.

Crossbow Technology, Inc.
41 East Daggett Drive

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Crossbow

calibration date

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3.200

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