

		CHATS WORTH, CA.							
		SCALE	1X	REV	-	DATE	-	ECN	-
DATE		7/11/02		PART NO.		MODEL 5860B			
DRAWN		N.C.		CHECKED		R.A.			
APPROVED		7-12-02		NEXT ASSEMBLY		USED ON			
TITLE		OUTLINE/INSTALLATION DRAWING, MODEL 5860B IMPEDANCE HEAD					DWG NO.		127-5860B
							SHEET		OF

1. SENSITIVITIES OF MODEL 5860B: 100 mV/LB, 100 mV/G.



- MEASURES FORCE AND ACCELERATION
- IEPE, VOLTAGE MODE
- MODAL AND STRUCTURAL ANALYSIS

**FORCE SENSOR**

Sensitivity, ±10%  
 Range for ±5 Volts Out  
 Maximum Force, ±  
 Resolution  
 Resonant Frequency, Unloaded  
 Linearity, ± [2]  
 Mass Ahead of Quartz Crystals  
 Bias Voltage  
 Output Polarity, Compression

ENGLISH		SI	
100	mV/lbf	22	mV/N
50	lbf	222	N
100	lbf	445	N
0.007	lbf	0.03	N
> 50	kHz	> 50	kHz
2	% F.S.	2	% F.S.
0.35	oz	10	grams
7.5 to 9.5	VDC	7.5 to 9.5	VDC
Positive		Positive	

**ACCELEROMETER**

Sensitivity, ±10% [1]  
 Range for ±5 Volts Out  
 Maximum Acceleration, ±  
 Frequency Response, ±5%  
 Resonant Frequency  
 Linearity, ± [2]  
 Transverse Sensitivity, Max.  
 Bias Voltage  
 Polarity, Toward Driving Point

100	mV/g	10	mV/m/s <sup>2</sup>
50	g	5	m/s <sup>2</sup>
100	g	10	m/s <sup>2</sup>
1 to 8000	Hz	1 to 8000	Hz
> 35	kHz	> 35	kHz
1	% F.S.	1	% F.S.
5	%	5	%
11 to 13	VDC	11 to 13	VDC
Positive		Positive	

**COMMON SPECIFICATIONS**

Stiffness, Overall  
 Output Impedance  
 Temperature Range  
 Discharge Time Constant  
 Coefficient of Thermal Sensitivity  
 Compliance Voltage  
 Constant Current Range [3]  
 Weight  
 Material  
 Mounting Thread, Both Ends

2.2x10 <sup>7</sup>	lb/in.	3.85x10 <sup>9</sup>	N/m
100	Ohms	100	Ohms
-100 to +250	°F	-73 to +121	°C
1.0 to 2.0	Sec.	1.0 to 2.0	Sec.
0.03	%/°F	0.05	%/°C
+18 to +30	VDC	+18 to +30	VDC
2 to 20	mA	2 to 20	mA
2.1	oz	60	grams
300 Series S.S.		300 Series S.S.	
10-32 UNF-2B		10-32 UNF-2B	

**This family also includes:**

Model	Force Sens. (mV/lbf)	Accelerometer Sens. (mV/g)	Max. Force (lbf)	Max. Acceleration (g)	Frequency Response (Hz)	T.C. (sec)	Resolution (lbf, RMS)

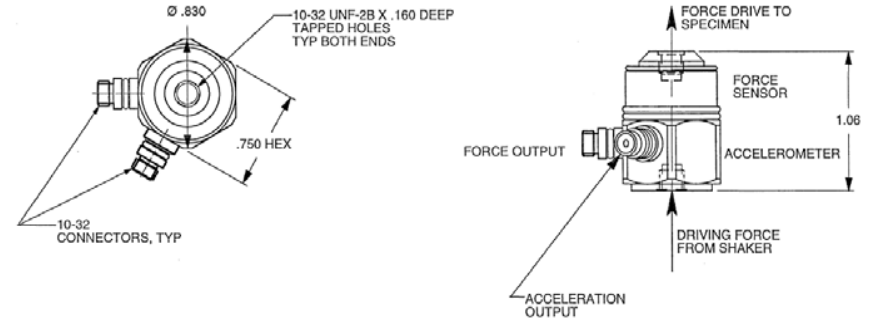
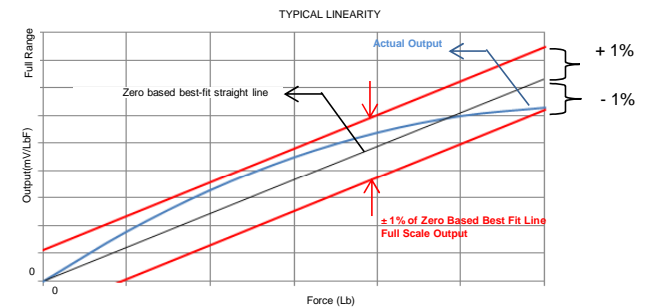
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 6200 Mounting Studs, Qty 2.

**Notes:**

- [1] Measured at 100Hz, 1 Grms per ISA RP 37.2.
- [2] Percent of full scale or any lesser range, zero based best-fit straight line method.
- [3] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
- [4] In the interest of constant product improvement, we reserve the right to change specifications without notice.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-5860B for more information.

