

DYTRAN INSTRUMENTS, INC.		CHATSWORTH, CA.			
SCALE	1X	REV	DATE	ECN	
DATE	7/11/02	PART NO. MODEL 5860B			
DRAWN	N.C.	CHECKED	R.A.	MAT'L	-
APPROVED	7-12-02		NEXT ASSEMBLY	USED ON	
TITLE				DWG NO.	
OUTLINE/INSTALLATION DRAWING, MODEL 5860B IMPEDANCE HEAD				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 ²
50	g	5	m/s ²
100	g	10	m/s ²
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 ⁷	lb/in.	3.85x10 ⁹	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)

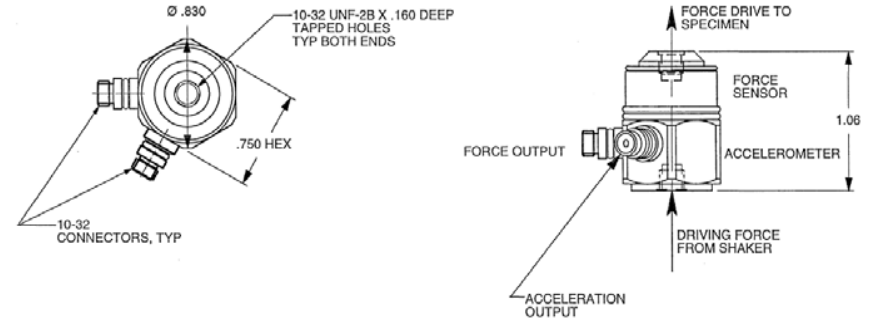
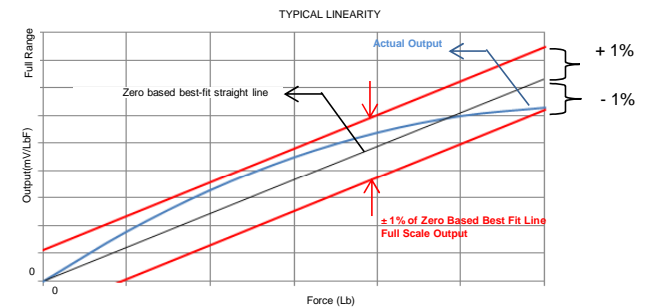
Refer to the performance specifications of the products in this family for detailed description.

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.

