

# Subminiature Load Cells

## Model 13



Model 13 Compression Only

150 g to 1,000 lb.

STAINLESS STEEL

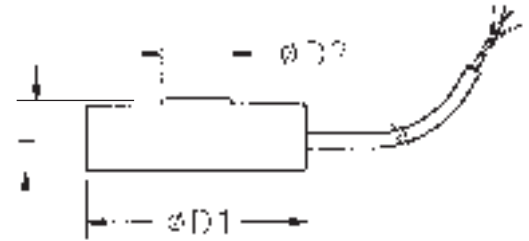
Model 13 (compression only) Subminiature Load Cell is designed to measure load ranges from 150 g to 1000 lb. With subminiature dimensions, including diameters from 0.38" to 0.75" and heights of 0.13" to 0.25", these units are easily incorporated into systems having limited space. Model 13 combines high frequency and low deflection to achieve a combined non-linearity and hysteresis of 0.25%-0.5% full scale. A small circuit board is included in the load cell's lead wire cable for temperature compensation, and should not be removed.

### Dimensions

#### Model 13 (Order Code AL322)

Available Ranges*	D1"	D2"	H"
150; 250; 500 g;	0.38	0.09	0.13
<b>1,000 g; 5; 10; 25; 50 lb.</b>	0.38	0.09	0.13
<b>100; 250 lb.</b>	0.50	0.12	0.15
<b>500; 1,000 lb.</b>	0.75	0.25	0.25

\*Stocked ranges are in bold faced print.



### PERFORMANCE

Load Ranges .....	150 g to 1000 lb.
Non-Linearity/Hysteresis (max) ....	±0.5% F.S.
Non-Repeatability (max) .....	±0.1% F.S.
Output (standard)	
150 g to 500 g .....	15mV/V nom.
1,000 g .....	1.5mV/V nom.
5 lb. to 1,000 lb. ....	2mV/V nom.
Resolution .....	Infinite
Zero Balance (norm.) .....	±0.3% F.S.

### ENVIRONMENTAL

Temperature, Operating .....	-65° F to 250° F
Temperature, Compensated .....	60° F to 160° F
Temperature Effect	
-Zero (max) .....	0.01% F.S./° F
-Span (max) .....	0.02% Rdg./° F

### ELECTRICAL

Strain Gage Type .....	Semiconductor
150 g to 500 g .....	Foil
1,000 g to 1,000 lb .....	5VDC
Excitation (calibration)	
50 g to 1000 lb. ....	5000 megohm @ 50VDC
Insulation Resistance .....	
Bridge Resistance	
50 g to 500 g .....	500 ohms (semi)
1000 g to 1000 lb. ....	350 ohms (foil)
	Included
Shunt Calibration Data .....	#1 (See Appendix)
Wiring Code (std) .....	5' integral cable with balance board*
Electrical Termination (std) .....	

### MECHANICAL

	150g	250g	500g	1000g	5lb	10lb	25lb	50lb	100lb	250lb	500lb	1000lb
Deflection @ F.S. (x10 <sup>-3</sup> in)	0.06	0.06	0.08	0.05	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6
Static Overload Capacity (% F.S.)	500	500	500	150	150	150	150	150	150	150	150	150
Ringing Frequency (kHz)	26	31	39	26	34	46	69	88	71	86	57	61
Weight (g)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.1	3.2	10	10

**NOTES** \*A small 2" long circuit board is included in the cable, 2 ft. from the load cell. Do not remove this board.

### Options (See Appendix)

Temperature compensated 1b, 1c

**Premium Options:** 1e (≥1,000 g only), 1f (≥1,000 g only)