

# Subminiature Load Cells

## Model 11



Model 11 Tension/Compression

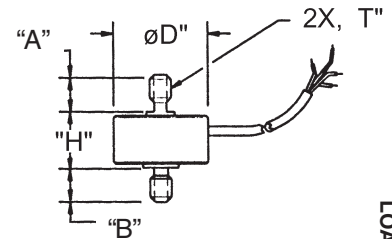
150 g to 1,000 lb.

STAINLESS STEEL

Model 11 (tension/compression) Subminiature Load Cell is designed to measure load ranges from 150 g to 1000 lb. With subminiature dimensions, including diameters from .50" to 0.75" and height of 0.38", these units are easily incorporated into systems having limited space. The model achieves a combined non-linearity and hysteresis of 0.5% full scale and a frequency response of up to 58 kHz. A small circuit board is included in the load cell's lead wire cable for zero balance, and should not be removed.

### Model 11 (Order Code BL321)

Available Ranges	øD"	T	H"	A"	B"	Q *
150; 250; 500; 1000 g	0.50	#4-40UNC	0.29	0.19	0.18	4
5; 10; 25; 50; 100 lb.	0.50	#4-40UNC	0.29	0.19	0.18	4
250; 500; 1,000 lb.	0.75	1/4-28UNF	0.38	0.31	0.31	20



\* "Q" = maximum tightening torque allowed inch-lb.

### PERFORMANCE

Load Ranges .....	150 g to 1000 lb.
Non-Linearity (max) .....	±0.5% F.S.
Hysteresis (max) .....	±0.5% F.S.
Non-Repeatability (max) .....	±0.1% F.S.
Output (standard)	
150 g to 500 g .....	10mV/V nom.
1,000 g to 1,000 lb. ....	2mV/V nom.
Resolution .....	Infinite
Zero Balance (nom.) .....	± 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	
150 g to 500 g .....	Semiconductor
1,000 g to 10,000 lb. ....	Foil
Excitation (calibration) .....	5VDC
Insulation Resistance .....	5000 megohm @ 50VDC
Bridge Resistance	
150 g to 500 g .....	500 ohms (semi)
1,000 g to 1,000 lb. ....	350 ohms (foil)
Wiring Code (std) .....	#1 (See Appendix)
Electrical Termination (std) .....	5' integral cable with balance board*

### MECHANICAL

	150g	250g	500g	1000g	5lb	10lb	25lb	50lb	100lb	250lb	500lb	1000lb
Deflection @ F.S. (x10 <sup>-3</sup> in)	0.05	0.04	0.03	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.7	1.0
Static Overload Capacity (% F.S.)	500	500	500	150	150	150	150	150	150	150	150	150
Ringing Frequency (kHz)	10	14	22	8	11	17	24	34	48	25	33	40
Weight (g)	5	5	5	5	5	5	5	5	5	19	19	19

**NOTE:** Standard calibration for tension/compression load cells is in tension only.

\* 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)