

Low Cost Load Cell

Model 53

±0.25% NON-LINEARITY

5 TO 50,000 lb.

STAINLESS STEEL



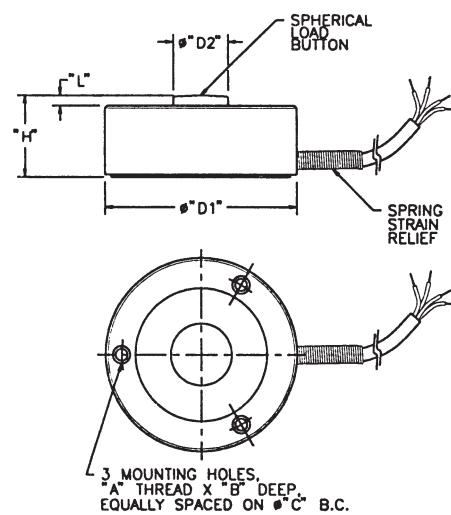
Model 53 load cells are bonded foil strain gage transducers designed for low cost production and testing applications (i.e. press calibration). Engineered compression force measurements up to 50,000 lb., this model achieves a maximum non-linearity of 0.25% full scale. Precision gaging techniques and a stainless steel construction provides excellent long-term stability and reliability under severe operating conditions. The Model 53 compression-only load cell has an integral load button machined as part of the load cell. The Model 53 must be mounted on a smooth flat surface for proper operation. Three tapped holes are provided for mounting.

Dimensions

(Order Code) AL131

Ranges

| Ranges | D1" | D2" | H" | L" | A" | B" | C" |
|------------------------------------|------|------|------|------|-----------|-----|-------|
| 5, 10, 25, 50, 100 lb. | 1.00 | 0.21 | 0.62 | 0.05 | #4-40 UNC | .22 | 0.75 |
| 250, 500, 1000, 2000 lb. | 1.25 | 0.32 | 0.39 | 0.07 | #6-32-UNC | .25 | 1.00 |
| 3000, 4000, 5000, 7500, 10,000 lb. | 1.50 | 0.40 | 0.63 | 0.08 | #6-32 UNC | .25 | 1.25 |
| 15,000, 20,000, 30,000 lb. | 2.00 | 0.60 | 1.00 | 0.12 | #6-32 UNC | .25 | 1.625 |
| 50,000 lb. | 3.00 | 0.78 | 1.50 | 0.18 | #6-32 UNC | .25 | 2.375 |



Options (See Appendix)

Temperature compensated 1b; 1c; 1e

Premium Options: 1g; 1h; 1i; 6d; 6i (H" dimension will increase); 12b

Model 53(Compression Only)
Order Code AL131)

| | | |
|---|---|----------------------|
| PERFORMANCE | Load Ranges | 5 to 50,000 lb. |
| | Non-Linearity (max) | ±0.25% F.S. |
| | Hysteresis (max) | ±0.3% F.S. |
| | Non-Repeatability (max) | ±0.1% F.S. |
| | Output (standard) | 2mV/V |
| | Resolution | Infinite |
| ENVIRONMENTAL | Temperature, Operating | -65° F to 250° F |
| | Temperature, Compensated | 60° F to 160° F |
| | Temperature Effect -Zero (max) | 0.005% F.S./° F |
| | -Span (max) | 0.01% Rdg./° F |
| ELECTRICAL | Strain Gage Type | Bonded foil |
| | Excitation (calibration) | 10VDC |
| | Excitation (acceptable) | Up to 10VDC or AC |
| | Insulation Resistance | 5000 megohm @ 50VDC |
| | Bridge Resistance | 350 ohms |
| | Shunt Calibration Data | Included |
| | Wiring Code (std.) | #1 (See Pg. AP-8) |
| | Electrical Termination (std) | Teflon cable (5 ft.) |
| MECHANICAL | Overload, Safe | 50% over capacity |
| | Deflection -Full Scale | 0.001" -0.003" |
| | Casing Material | 17-4 PH Stainless |
| IN-LINE AMPLIFIERS (Optional) | Outputs Available | 0-5VDC, 4-20mA |

General Information

How to order (See Pg. AP-19)
 Load cell selection flow chart (See Pg. LO-1)