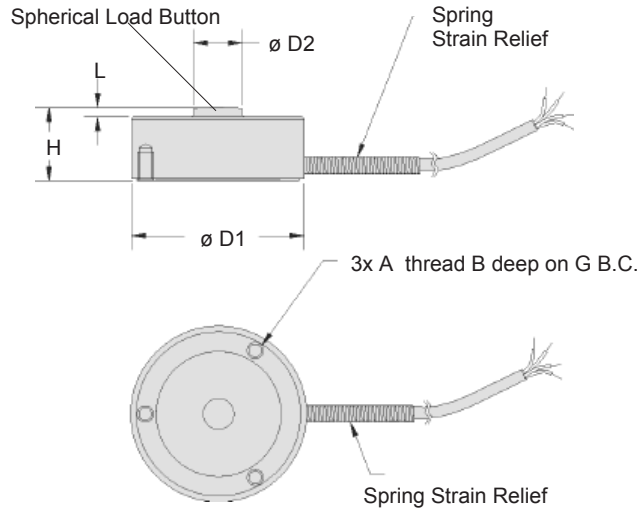


Model 53 Low Cost Load Cell

Order Code AL131

- 5 to 50,000 lb.
- Stainless Steel
- Mini Footprint
- Button Style Design
- mV/V Output



Wiring Code

Cable/ Unamplified

- Red (+) Excitation
- Black (-) Excitation
- Green (-) Output
- White (+) Output

Dimensions

Range (lb.)	D1 (in.)	D2 (in.)	H (in.)	L (in.)	A (in.)	B (in.)	G (in.)
5; 10; 25; 50; 100	1.00	0.21	0.62	0.05	#4-40 UNC	0.22	0.750
250; 500; 1000; 2000	1.25	0.32	0.39	0.07	#6-32 UNC	0.25	1.000
3000; 4000; 5000; 7500; 10,000	1.50	0.40	0.63	0.08	#6-32 UNC	0.25	1.250
15,000; 20,000; 30,000	2.00	0.60	1.00	0.12	#6-32 UNC	0.25	1.625
50,000	3.00	0.78	1.50	0.18	#6-32 UNC	0.25	2.375

Performance

- Load Ranges.....5 to 50,000 lbs.
- Linearity (max.).....+/- 0.5% Full Scale
- Hysteresis (max.).....+/- 0.3% Full Scale
- Non-Repeatability (max.).....+/- 0.1% Full Scale
- Output (tolerance).....2 mV/V (nominal)
- Operation.....Compression
- Resolution.....Infinite

Environmental

- Temperature, Operating.....-65° to 250° F
- Temperature, Compensated.....60° to 160° F
- Temperature, Effect
 - Zero.....0.005% Full Scale/° F
 - Span.....0.01% Full Scale/° F

Electrical

- Strain Gage Type.....Bonded Foil
- Excitation (calibration)
 - 5 to 100 lb.....5VDC
 - 250 to 50,000 lb.....10 VDC
- Insulation Resistance.....5000 Megohms @ 50 VDC
- Bridge Resistance (tolerance).....350 Ohms (nominal)
- Zero Balance (tolerance).....+/- 1% of Full Scale
- Shunt Calibration Data.....Included
- Electrical Termination (std).....Teflon cable (5 ft.)

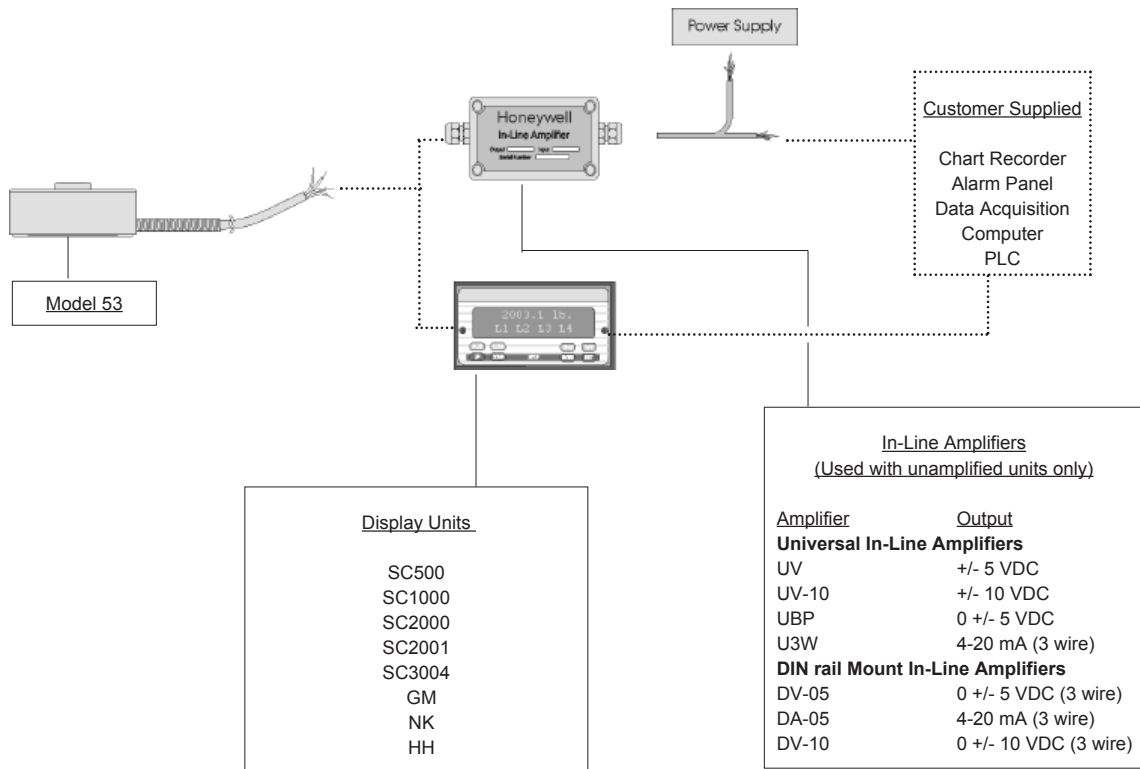
Mechanical

- Weight.....See table
- Material.....17-4 PH Stainless Steel
- Maximum Allowable Load.....150% F.S. (note 1)
- Deflection Full Scale.....See table
- Natural Frequency.....See table

Deflections and Ringing Frequencies

Capacity (lb.)	Deflection @ Full Scale (in.)	Ringing Frequency (Hz)	Weight with Cable (g)
5	.001	2,000	59
10	.001	3,000	59
25	.001	16,000	62
50	.001	21,000	63
100	.001	28,000	64
250	.001	25,000	72
500	.001	32,000	72
1,000	.001	42,000	75
2,000	.001	53,000	77
3,000	.001	27,000	137
4,000	.001	31,000	138
5,000	.001	34,000	140
7,500	.001	41,000	142
10,000	.001	47,000	145
15,000	.002	24,000	368
20,000	.002	28,000	372
30,000	.002	33,000	377
50,000	.003	24,000	1,270

Typical System Diagram



Model 53

Range Codes

Range	Range Code
5 lb.	AT
10 lb.	AV
25 lb.	BL
50 lb.	BN
100 lb.	BR
250 lb.	CN
500 lb.	CR
1,000 lb.	CV
2,000 lb.	DL
3,000 lb.	DN
4,000 lb.	DP
5,000 lb.	DR
7,500 lb.	DT
10,000 lb.	DV
15,000 lb.	EJ
20,000 lb.	EL
30,000 lb.	EN
50,000 lb.	EP

Special Customer Requirements (Consult Factory)

- OEM labels
- Radiation rated
- Different cable lengths
- Increased fatigue life
- Custom cable exit
- Alternate cable material
- Thru mounting holes
- Integral connector

Options

	Same Day Ship	Fast track manufacture	Build to order	Build from scratch
Load Range	500, 1000, 2000, 5000, 10,000, 20,000, 50,000 lb			5, 10, 25, 50, 100, 250, 3000, 4000, 7500, 15,000, 30,000 lb
Temperature Compensation	1a. 60° to 160° F	1b. 30° to 130° F 1c. 0° to 185° F 1d. -20° to 130° F 1e. -20° to 200° F 1j. 0° to 50° C 1k. -20° to 85° C 1m. -25° to 110° C	1f. 70° to 250° F 1g. 70° to 325° F 1h. 70° to 400° F 1i. -65° to 250° F	
Internal Amplifiers	2u. Unamplified, mV/V output			
Electrical Termination	6e. Integral cable: Teflon	6d. Microtec DR-4S-4H 4 pin 6v. Phoenix connector on end of cable	6f. Integral cable: PVC 6g. Integral cable: Neoprene 6h. Integral cable: Silicone 6i. Integral underwater cable (note 3)	
Special Calibration		9a. 10 point (5 up/5 down) 20% increments @ 68° F 9b. 20 point (10 up/10 down) 10% increments @ 68° F		
Shock & Vibration		44a. Shock and vibration resistance		
Interfaces (note 4)		53e. Signature Calibration 53t. T.E.D.S. IEEE 1451.4 Module		

Supplied as standard

Notes

1. Allowable Maximum Loads - Maximum load to be applied without damage (note 2).
2. Without Damage - loading to this level will not cause excessive zero shift or performance degradation. The user must consider fatigue life for long term use and structural integrity. All structurally critical applications (overhead loading, etc.) should always be designed with safety redundant load paths.
3. Dimension "H" may increase with option 6i. Consult factory. Maximum temperature is 180° F.
4. TEDS available with integral cable units only.

How to Order

Combine the order code, the range code and the options code.

Sample Code: **AL131** **AT** **1b**
 Order Code Range Code Options Code