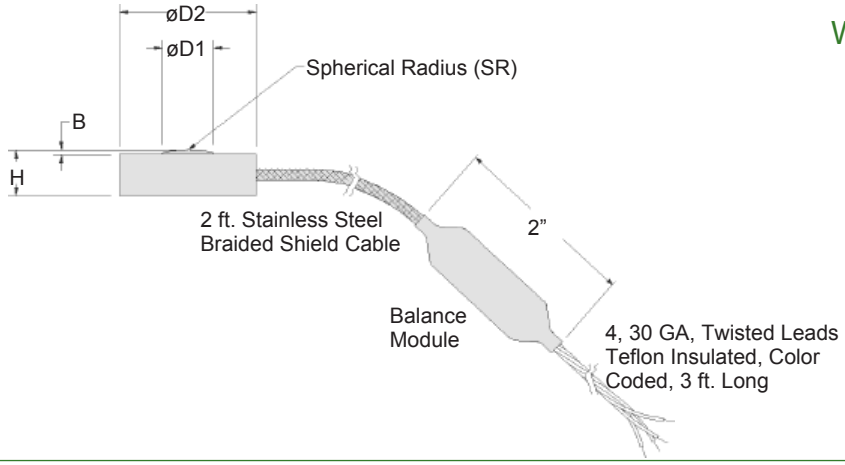
Model 13 Subminiature Load Cell

Order Code AL322

- 150 g to 1,000 lb.
- mV/V Output
- Stainless Steel
- Single Diaphragm Construction



Wiring Code

Cable/ Unamplified

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

Dimensions

Ranges	D1 (in.)	D2 (in.)	H (in.)	B (in.)	SR (in.)
150; 250; 500; 1000 g 5; 10; 25; 50 lb.	0.38	0.09	0.13	0.027	0.25
100; 250 lb.	0.50	0.12	0.15	0.020	0.50
500; 1000 lb.	0.75	0.25	0.25	0.025	0.50

Performance

Load Ranges.....150; 250; 500; 1000 g; 5; 10; 25; 50; 100; 250; 500; 1000 lb.
Linearity.....+/- 0.5% Full Scale
Hysteresis.....+/- 0.5% Full Scale
Non-Repeatability.....+/- 0.1% Full Scale
Output (tolerance)
150 g to 500 g.....15 mV/V (nominal)
1000 g.....1.5 mV/V (nominal)
5 lb. to 1000 lb.....2 mV/V (nominal)
Operation.....Compression Only
Resolution.....Infinite

Environmental

Temperature, Operating.....-65° to 250° F
Temperature, Compensated.....60° to 160° F
Temperature, Effect
Zero.....0.01% Full Scale/ °F
Span.....0.02% Reading/ °F

Electrical

Strain Gage Type
150 g to 500 g.....Semiconductor
1000 g to 1000 lb.....Bonded Foil
Excitation (calibration).....5 VDC
Insulation Resistance.....5000 Megohms @ 50 VDC
Bridge Resistance (tolerance)
150 g to 500 g.....500 Ohms (nominal)
1000 g to 1000 lb.....350 Ohms (nominal)
Zero Balance (tolerance).....+/- 3% of Full Scale (nominal)
Shunt Calibration Data.....Included
Electrical Termination (std).....5’ Integral cable with balance board (note 3)

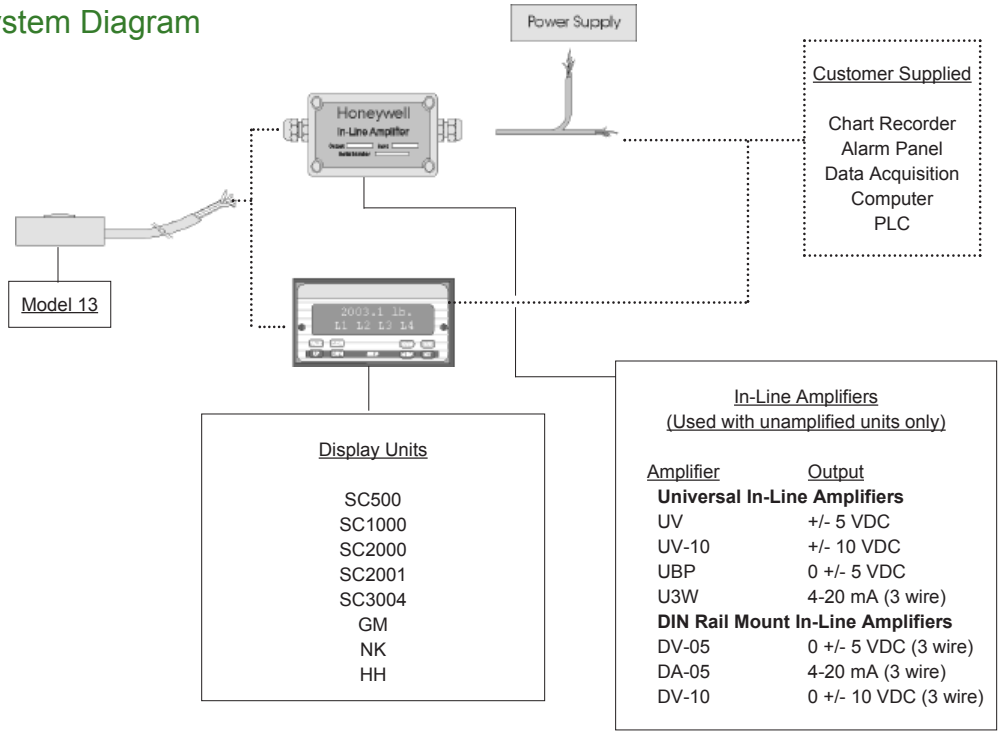
Mechanical

Maximum Allowable Load.....See table
Weight.....See table
Material.....Stainless Steel
Deflection @ Full Scale.....See table

Deflections and Weight

Capacity	Deflection at Full Scale (10^{-3} in.)	Weight (g)	Weight with Cable (g)	Maximum Allowable Load (note 1) (%F.S.)
150 g	0.06	1	9	500
250 g	0.06	1	9	500
500 g	0.08	1	9	500
1000 g	0.05	1	9	150
5 lb.	0.5	1	9	150
10 lb.	0.4	1	9	150
25 lb.	0.4	1	9	150
50 lb.	0.4	1	9	150
100 lb.	0.4	3	11	150
250 lb.	0.5	3	11	150
500 lb.	0.5	10	18	150
1000 lb.	0.6	10	18	150

Typical System Diagram



Range Codes

Range	Range Code
150 g	AL
250 g	AN
500 g	AP
1000 g	AR

Range	Range Code
5 lb.	AT
10 lb.	AV
25 lb.	BL
50 lb.	BN
100 lb.	BR
250 lb.	CN
500 lb.	CR
1000 lb.	CV

Options

	Same Day Ship	Fast track manufacture	Build to order	Build from scratch
Load Range	1000 grams 10, 25, 50, 100, 250, 500, 1000 lbs			150, 250, 500 grams 5 lbs
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		
Internal Amplifiers	2u. Unamplified, mV/V output			
Overload Stops			4a. Overload Stops	
Electrical Termination	Twisted cable	6v. Phoenix connector on end of cable 15d. Connector on end of cable		
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	

Supplied as standard

Special Customer Requirements (Consult Factory)

OEM Labels
Radiation rated
Different cable lengths
Non-magnetic
Increased fatigue life
Custom cable exit
No circuit board (note 5)
Alternate cable materials

Notes

1. Allowable Maximum Loads- Maximum load to be applied without damage (note 2). Loads described allow for 100% full scale axial loading with the bending loads specified. Torque loading maximum is without axial or other load. For any other combination consult factory.

2. Without Damage- loading to this level will not cause excessive zero shift of 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. A small 2 in. circuit board is included in the cable, 2 ft. from the load cell. Do not remove this board.

4. Only for ranges greater than or equal to 1000 g.

5. Specifications may vary with this option.

How to Order

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

Sample Code: AL322 (Order Code) AT (Range Code) 1b (Options Code)