

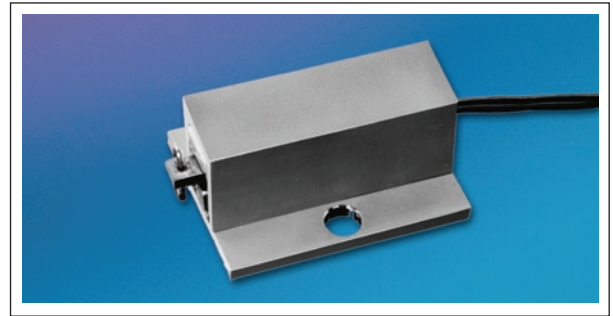
MINIATURE LOAD CELL

BG SERIES

- High Output
- Bi-Directional
- Solid State Sensing
- High Overload Capability

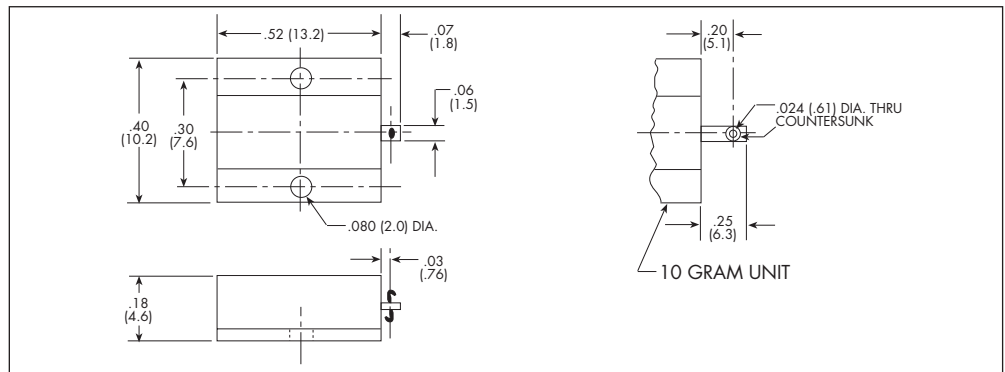
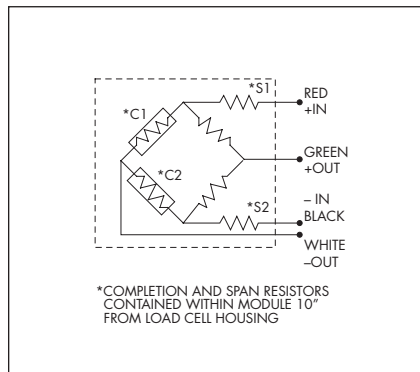
The BG Series of solid state load cells is designed to measure a bi-directional tension force applied to the end of an ultraminiature cantilever beam. Utilizing a 2 active arm Wheatstone bridge, the beam's unique construction provides an outstanding combination of high sensitivity and high spring constant. An additional feature is its insensitivity to cross axis or lateral force inputs.

Designed as a general research instrument, the device contains mechanical stops to permit extreme overloading without damage. The high spring constant and high output permit the measurement of high frequency force fluctuations.



Range ± grams	Full Scale Output	Nominal Full Scale Deflection	Natural Frequency (KHz)
10	10mV/V	0.0007"	.6
25	12mV/V	0.00055"	1.8
50	15mV/V	0.0011"	1.8
100	20mV/V	0.0022"	1.8
150	20mV/V	0.00045"	4.0
300	20mV/V	0.0009"	4.0
500	20mV/V	0.00025"	9.5
1000	20mV/V	0.0005"	9.5

Operational Mode	Tension and Compression
Overload	400% of Full Scale Load With No Calibration Change 800% of Full Scale Load With No Mechanical Failure (Mechanical Stop Protects Unit Above Approximately 300% FSL)
Side Load Capacity	6 Times Direct Load
Rated Electrical Excitation	10 VDC/AC (RMS)
Maximum Electrical Excitation	15 VDC/AC (RMS)
Input Impedance	1800 Ohms (Nom.)
Output Impedance	2200 Ohms (Nom.)
Residual Unbalance	Less Than 2% FSO
Combined Non-Linearity, Hysteresis and Repeatability	± 1.0% FSO
Resolution	Infinitesimal
Operating Temperature Range	0°F to 180°F (-20°C to +80°C)
Compensated Temperature Range	20°F to 120°F (-8°C to +49°C)
Thermal Zero Shift	Less Than 1% FSO/100°F
Thermal Sensitivity Shift	± 1% /100°F
Electrical Connection	3' #36 Teflon Wire
Insulation Resistance	100 Megohms @ 50 VDC
Weight	.035 Oz. (1 Gram)
Sensing Principle	4 Arm Strain Gage Bridge
Load Hook	Unit Normally Supplied With .014 Diameter Wire Hook (Not 1000G)



Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters.

Continuous development and refinement of our products may result in specification changes without notice - all dimensions nominal (N)