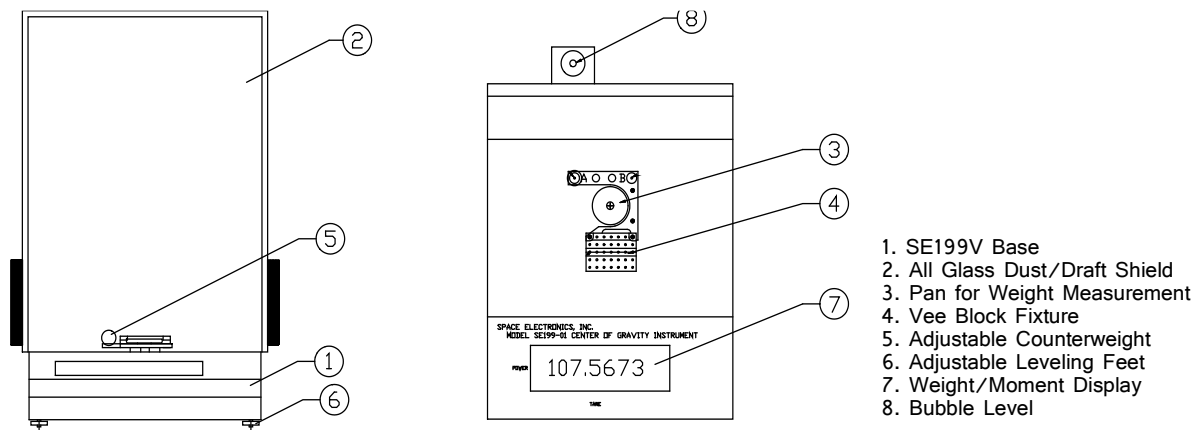


Model SE199

Micro-Moment Center of Gravity Instrument



General Description

This instrument is designed to measure weight and precisely locate the CG of test objects weighing up to 100 gm along a single axis. It is particularly well suited for locating the CG of gyro rotors, small turbine buckets, and other small objects for balancing purposes. With alternate fixturing, the axial position of the CG of small caliber bullets and other small projectiles can also be accurately determined. This instrument uses a microbalance moment transducer concept developed by Raptor Scientific to achieve a sensitivity of .06 gm-mm. A dual axis version of this instrument, utilizing a rotary table, is also available.

Design Features

The SE199 instrument has a simple operation to determine both weight & CG. There is minimal setup and measurement time and a computer including Raptor Scientific software to automate calculation and reporting. We offer optional fixtures for locating various shaped parts at an additional cost.

General Specifications

Minimum Payload Weight:	0.002 lb
Maximum Payload Weight:	0.22 lb (including fixture)
CG Location Accuracy:	0.1% + 0.06 g-mm
Full Scale Moment:	0.04 lb-in
Moment Sensitivity:	1.7×10^{-5} lb-in
Weight Sensitivity:	1.1×10^{-5} lb

SE199-01 Grid plate interface version - designed to measure rectangular objects. Part locating pins can be inserted in the grid at a variety of known reference locations.

SE199-02 Vee block interface version - designed to measure axial CG location of cylindrical objects such as small bullets or gyro rotors. The 120-degree vee is 0.85" wide x 2" long. There is an adjustable end stop. A second vee at right angles allows measurement of radial CG.