

Radnoti

The Radnoti 159901A transducer operates on the principle of converting picofarad capacitance changes into an amplified DC output voltage by means of a patented circuit (U.S. Patent Number 4142144).

The transducer consists of a stiff beam suspended between two capacitor plates. This forms a differential capacitor. Using this principal, the beam can be exceptionally stiff, approaching the ideal of measuring force without motion. As an example, for a force of 2 grams, the beam deflection is a maximum of only 5 microns in either the 0.2 or 2.0 gram range mode. The linearity is within +1% with a high DC voltage output and freedom from drift.

The transducer comes with an integral short, rigid mounting handle. To obtain maximum advantage of stiff beam characteristics of the transducer, it should be positioned and held in place with hardware that is as rigid as possible such that all the muscle forces are recorded (i.e. captured) and none are lost in extraneous deflections of the mounting hardware.

The 159951 series of Radnoti Support Stands are the mounting hardware of choice. The durable construction will not deflect under load. The transducer itself should be positioned such that the output cable at the rear of the transducer ends up on the bottom.

The transducer has a short tissue mounting rod with a groove that projects from the front. One end of a non-stretching string or wire must be formed into a loop and fastened into the groove on the shaft. The other end of the string or wire is subsequently attached to the muscle preparation. The string or wire must be at right angle to the transducer rod and be pulled straight down once the final setup has been completed.

The transducer is equipped with a transparent, removable plastic shield that helps to prevent buildup of salts (i.e. corrosives) which may otherwise tend to accumulate on the transducer rod and migrate into the transducer circuit. In time, this salt buildup can deteriorate performance. The wire or string from the beam must be directed through the slot in the splash shield without touching the edge.



Radnoti Glass Technology, Inc

227 W. Maple Ave. Monrovia, CA 91016

(800) 428-1416 (626) 357-8827 fax (626) 303-2998

www.radnoti.com