Some Measurement Specialties accelerometers employ polysilicon surfaced micro-machined (MEMS) sensors, each capable of measuring positive and negative acceleration along one axis.

The sensor element functions on the principle of differential capacitance. Acceleration causes displacement of a silicon structure resulting in a change in capacitance. A circuit, using standard CMOS manufacturing process, detects and transforms changes in capacitance into an analog output voltage, which is proportional to acceleration. The sense element design utilizes common mode cancellation to decrease errors from process variation and environmental stress.

If you have specific questions regarding a Measurement Specialties product, please do not hesitate to contact us.

_Tethered main beam with center plates at right angles to main beam (exact configurations vary)_

![Diagram](image-url)