

Position Sensing With Variable Capacitance Transducers

Abstract of the Disclosure

For enabling precise operation of an oscillating device, such as a galvanometric optical scanner, a capacitive position transducer is provided with strategically located internal capacitive fiducial features that interact with the armature of the transducer beyond the central range of excursion of the transducer, typically beyond the normal operating range of the device. Electric pulses obtained at instants of interaction with the fiducials enable determination of position drift caused e.g. by change in environmental conditions. The pulses can be detected by simple circuits to produce recalibration of the amplitude and null position of the instrument on an automatic or elective basis.

Fig. 1