

Abstract

Capacitive sensor circuit

A capacitive sensor circuit comprises: a sensor electrode (16) forming a first plate of a sensing capacitor (14) relative to a reference terminal (10), a first (2) and a second (26) inverting Schmitt trigger having the same threshold voltages. A feedback resistor (8) provides feedback from the output (6) to the input (4) of the first trigger (2),
5 which together with the sensing capacitor (14) forms an oscillator whose frequency depends on the magnitude of the sensing capacitor (14). The input (24) of the second trigger (26) is connected to the output of the first trigger (2) *via* a series resistor (22) and to the reference terminal (10) *via* a reference capacitor (30). The resistance values of the feedback resistor (8) and the series resistor (22) are equal. A d.c. signal will
10 appear on the output (32) of the second trigger if the capacitance of the sensing capacitor (14) is smaller than the capacitance of the reference capacitor (30) and an a.c. signal in the opposite case.

(Figure 1).

This Sheet Has Been Replaced

