



TEMPERATURE SENSORS OFFER PTC FOR FAIL SAFE

Scarborough, ON.

Philips Components division has introduced the KTY series of small-sized silicon temperature sensors.

Important features of these sensors include: high linearity which means that they can easily be incorporated into simple circuitry for compensation; wide operating temperature range, a typical KTY sensor can operate with

Precision temperature measurement using a liquid-crystal display

only simple linearization circuitry over a temperature range of 200 K, more than 3 times the temperature range of a typical NTC and offer high long-term stability. Because of the inherently stable properties of silicon and the use of the latest advances in semiconductor technology, KTY sensors can be guaranteed to remain accurate to within ± 0.05 K per year (at temperatures up to 55°C).

LCD THERMOMETER

This circuit uses an ICL 7126 which contains an ADC, a seven-segment decoder and an LCD driver. The IC provides a stabilized voltage of 2.8 V, between common (pin 32) and V+ (pin 1), used to supply the measuring bridge and as a reference voltage for the ADC.

The KTY81 sensor forms, with resistors R7 and R8, one arm of the measuring bridge, the other arm being formed by R6, P1 and R11. An RC network (R5, C5) in the signal line from the bridge to the IC suppresses any external interference that could affect the input signal V_{in} to the IC (espe-