

Using the ECL100/ECL101 With a ThreadSense Probe

The ECL100/ECL101, in combination with a ThreadSense probe, can detect the presence/absence of threads in a hole in aluminium.

Consult the ECL100/ECL101 User Guide for basic connection and operating instructions.

Setup/Calibration

Overview

The ECL100/ECL101 is factory calibrated to generate a 1V difference between a threaded and unthreaded hole. It is specifically calibrated to generate a 1V output in an unthreaded hole and a 2V output in a threaded hole.

The setup procedure is used to adjust the output voltage to these voltages in the application.

Procedure

Do ONE of the two procedures below, dependent on hardware available for the setup.

1. Unthreaded Calibration
 - a. Insert the probe into the unthreaded hole
 - b. Adjust ZERO for an output voltage of 1V
2. Threaded Calibration
 - a. Insert the probe into the threaded hole
 - b. Adjust ZERO for an output voltage of 2V

Mechanical Considerations

The probe must be reasonably well centered within the hole under test. Off-center positioning introduces small errors in the sensor output voltage which could then indicate the wrong condition.

For details, please consult the Lion Precision TechNote *LT02-0015 ThreadSense Probe Centering Errors* at www.lionprecision.com > click on Technical Library.