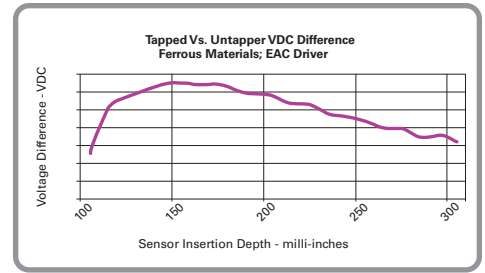
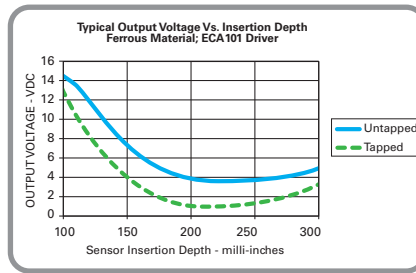


THREAD DETECTION CASE STUDY

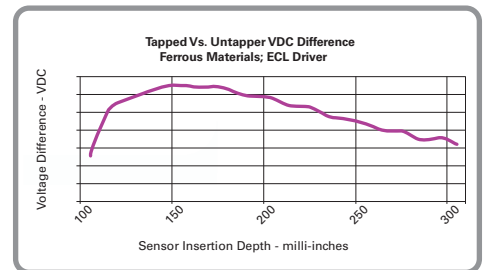
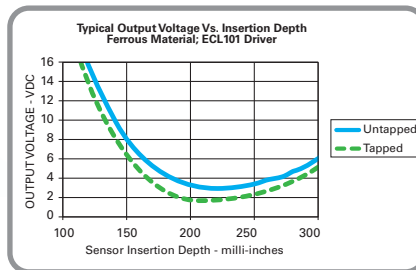
USING LION PRECISION THREAD DETECTION SYSTEMS TO
DETERMINE THE PRESENCE/ABSENCE OF THREADS IN HOLES



ECA DRIVER PLOTS



ECL DRIVER PLOTS



APPLICATION:

Using Lion Precision thread detection systems to determine the presence/absence of threads in holes.

SENSOR SOLUTION:

ECA/ECL101, Thread Detection Probes



BENEFITS:

The customer is enabled to inspect 100% of holes to ensure proper threading.

Parts with Tapped Holes must be inspected to ensure that the threads are tapped into each hole. If a thread is missed, it could cause a failure of the part, or in some cases even be a safety hazard. Although thread detection applications are found in many industries, automotive production is one of the biggest. Many corporations in the automotive industry mandate that each threaded hole in critical parts is inspected to ensure that the threads are cut.

Lion Precision offers inductive thread detection systems for both ferrous and non-ferrous metals. These systems use either ECL101/ECA101 drivers, and specially designed probes to fit into the threaded holes. The fundamental principle is that an untapped hole's surfaces are, on average, closer to the probe than a tapped hole's surfaces. This change in average distance from the probe to the surrounding material creates a change in output voltage from the electronics. Additionally, Lion Precision thread detection drivers have a switched output that is set up to change state based on the presence or absence of threads in a part.

