# Monitoring current in DC motor
APPLICATION A164

The customer is a leading global technology solutions provider to high-value segments of the food processing industries. The customer has developed a high speed horizontal slicer to decrease the time required to process chickens in their plant. The internal temperature of the chicken must be maintained at 40° F so the slicer is in a temperature controlled room that is maintained very close to "freezing" (32°F) which is required for the best "cutting" speed of the slicer.

Photo by Frontier Centre for Public Policy

The Engineering Issue

- The slicer runs at a very high speed and the engineer/operator needs to monitor the motor current to ensure it operates at optimum efficiency. If the current is outside the manufacturer-specified bandwidth, the slicer will not function at optimum speed.

- The engineer has installed a DC shunt in series with the DC power for the motor and needs to sound an operator "out of range" audible alarm if the motor current is outside of the limits.
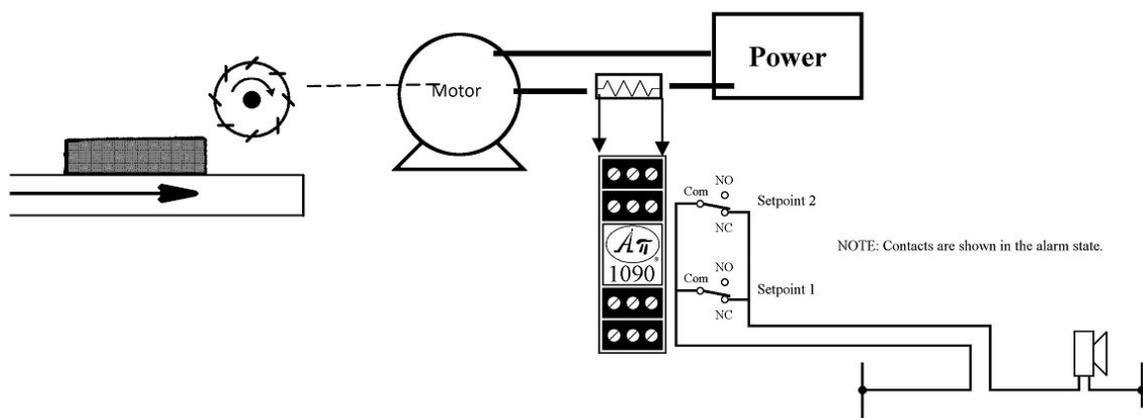
The engineer used a factory calibrated APD 1090. The free factory calibration allowed the engineer to use a standard off-the-shelf module.

Problem. Solved.