# *API-Cecomp Group* *n'fo*

## *Technical & Application Note A164*

| | |
|---|---|
| Application: | Monitoring current in DC motor |
| Type Of company: | Chicken Processing Plant |
| Location: | Tennessee |

<u>Problem:</u>  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. The slicer runs at a very high speed and the engineer/operator needs to monitor the motor current to ensure that the slicer operates at optimum efficiency. If the motor current is below or above the manufacturers specified motor operational current "bandwidth" the slicer will not function at the optimum  speed to properly slice the chickens.  The customer 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 was above or below the specified operating current.

*Note: for additional information on this process see http://en.wikipedia.org/wiki/Food_industry*

<u>Solution:</u> The customer chose to use an APD 1090.  The customer ordered the APD 1090 with free factory calibration for the range and set-points required for this application. This allowed the customer to use a standard off the shelf module.
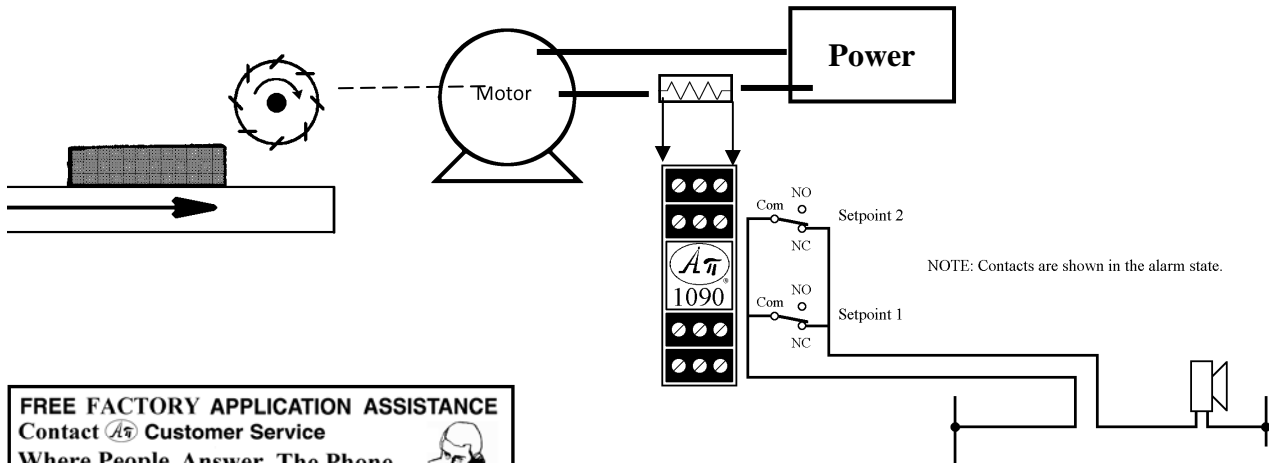


APD 1090

Field Configurable DC Input Alarm Trip



Photo by Frontier Centre for Public Policy



NOTE: Contacts are shown in the alarm state.

© 06-2015 Absolute Process Instruments, Inc.