

API-Cecom Group n'fo

Technical & Application Note A153

Application: Monitoring AC current on railroad crossings

Type Of company: Railroad

Location: Canada

Problem: In many countries, railroad crossings on less important roads and railway lines are often "open" or "uncontrolled", usually with warning lights or bells to warn of approaching trains. These ungated crossings represent a safety concern and many accidents have occurred due to failure to notice or obey the warning. Approximately 30 seconds before arriving at the crossing, the train trips a track circuit near the crossing, triggering the crossing signals. The lights begin to flash alternately, and a bell (or bells) mounted at the crossing begins ringing. After several seconds of flashing lights and ringing bells, the crossing gates (if equipped) begin to lower, which usually takes 5–10 seconds. The customer needs to monitor the current flowing thru the flashing lights to ensure proper operation in several remote locations.

Note: For additional information on crossing operation see http://en.wikipedia.org/wiki/Level_crossing

Solution: The recommended solution was to install a control transformer on the flashing light control circuit line and get a relay output if the current is below an acceptable value. The customer purchased an API 1600 G. The customer used a low alarm to notify maintenance operations that the light circuitry is not drawing enough current for proper operation. This solution allows the customer to reduce maintenance costs by only sending out a crew when necessary.

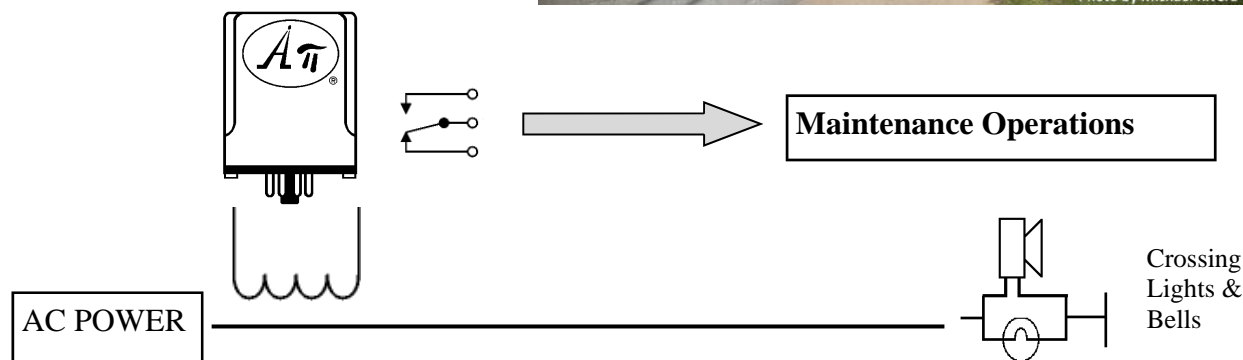



API 1600 G

AC Input Single Alarm trip



Photo by Michael Rivera



Contact Tom  for ordering or tech assistance
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