

# Automatically select pH transmitter

## APPLICATION A105

Type of Company: Chemical Plant

Location: Texas

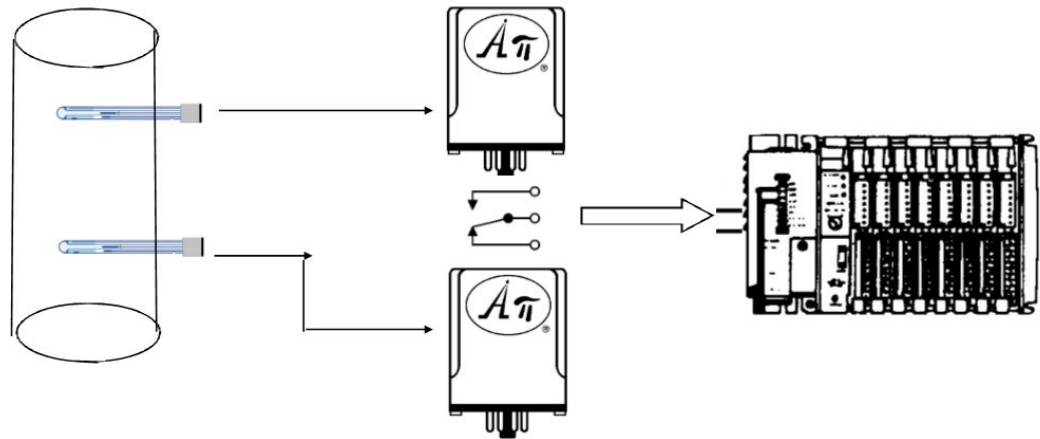
Central to the modern world economy, the chemical industry converts raw materials into more than 70,000 different products for many different applications. Chemical processes such as chemical reactions are run in chemical plants to produce a wide variety of solid, liquid, and gaseous materials. The process will typically use a primary pH transmitter and a redundant secondary (backup) pH transmitter due to this being a critical process variable.



Photo by J.H. JanBen

### The Engineering Issue

- The engineer only has one available analog input channel on the analog input card for the PLC, so there is a need to automatically choose which pH transmitter (4-20 mA output) to use for controlling the process.



The engineer used two API 1000 G's. Since the primary pH transmitter is configured to have an output of 22 mA in the event of electrolyte loss or removal from the process, a cost-effective solution is to use two API 1000 G's to automatically select the secondary pH transmitter output as the PLC input when the primary pH transmitter goes to 22 mA.

**Problem. Solved.**

