API-Cecomp Group *n'fo*

Technical & Application Notes

Application: Automatically select pH transmitter

Type of Company: Chemical Plant

Location: Texas

Problem: The customer is an Chemical manufacturer that produces several different types of chemicals for many different applications. The process uses a primary pH transmitter and a redundant secondary (backup) pH transmitter due to this being a critical process variable. Since there is only one available analog input channel on the analog input card for the Siemens PLC there is a need to automatically choose which pH transmitter (4-20 mA output) to use for controlling the process.

Solution: API furnished the customer 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 Siemens PLC input when the primary pH transmitter goes to 22 mA.

API 1000 G

API Unique Feature

Functional Test Pushbutton

Pressing the Functional Test Pushbutton will switch the relay(s) and bi-color LED(s) to the opposite state regardless of the input signal level. When released, the module will return to its normal operating state. The functional test button not only allows the technician to test the relays, but also the operation of the device the relays are controlling. For example, an API 1000 G is used as a high level alarm to prevent the overflow of a wastewater tank. The relay is wired to a pump which, when a high level is detected, turns on and pumps the wastewater to an overflow tank. Since over-filling the tank to test the pump is impractical, the technician simply has to depress the Test button and check the operation of the pump.

API List Pricing Quick Link