API-Cecomp Group n'fo

Technical & Application Note A167

Application: Isolating and converting a flow meter output

Type Of company: Graveyard

Location: California

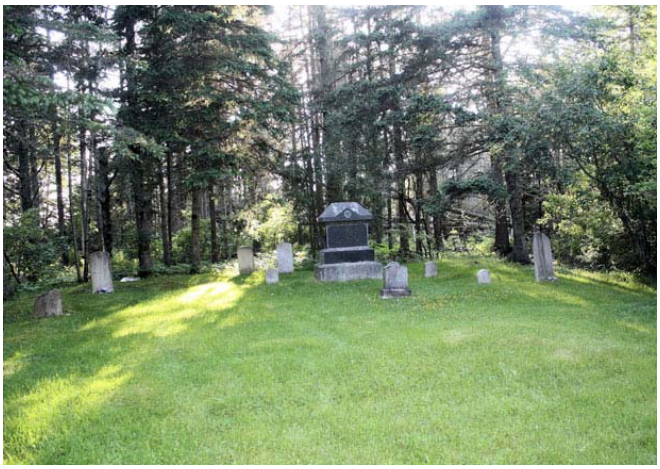
Problem: The customer is a consultant for a graveyard that is using potable water for irrigation. The graveyard has an older irrigation system and needs a booster pump installed to increase, or "boost" the water pressure of the sprinkler system. The pump will pull the water from the street and then push the water into the irrigation system at a higher volume and pressure than the main water line alone. The increased pressure created by the booster pump will improve the spray distance and performance of the sprinkler heads allowing for better coverage. The increased efficiency of the VFD drive saves electrical costs and the increased performance of the irrigation system reduces the annual water usage. The system uses a Yaskawa VFD drive to power the pump and a Data Industrial flow meter to monitor the water. The customer needs to convert the flow meter signal as the VFD drive must have a 4-20 mA signal and the flow meters output is a frequency. The device not only needs to convert the output from the flow meter but also isolate the signal to the VFD drive.

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

Solution: Since the customer needs conversion and isolation they chose to use an API 7010 G. This allowed the customer to use a standard off the shelf module that is factory calibrated for their specific range requirements. Since it is a "plug-in" module it gave the customer "hot swap-ability" in the event of power spikes or storms.

API 7010 G

Frequency to DC Isolated Transmitter



Benefits of API's solution:
Lower cost due to labor savings
Hot Swap ability
Use a standard product

API

Functional Test Pushbutton

The Functional Test Pushbutton will, when pressed, output a test signal independent of the input signal. This signal is adjustable from 0-100% of span by holding the Test button down and adjusting the Test potentiometer on the unit. On some models the test signal is fixed at 50% of output span. This feature allows the technician to temporarily inject a test or preset calibration signal into the output loop without manipulating the input signal. This signal can be used to check loop status, downstream display operation,

To find your local representative:
www.api-usa.com/api_rep_map.php

FREE FACTORY APPLICATION ASSISTANCE
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Where People Answer The Phone
www.api-usa.com
800-942-0315

API List Pricing Quick Link

Revised 10/2012